

=> FILE REG

FILE 'REGISTRY' ENTERED AT 18:33:44 ON 24 NOV 2009
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2009 American Chemical Society (ACS)

=> DISPLAY HISTORY FULL L1-

FILE 'HCAPLUS' ENTERED AT 16:31:39 ON 24 NOV 2009

L1 82 SEA HIRTHE ?/AU
L2 81 SEA FOHR ?/AU
L3 1419 SEA BIER ?/AU
L4 1251 SEA SANGER ?/AU
L5 197 SEA OTREMBA ?/AU
L6 541 SEA WEDLER ?/AU
L7 0 SEA L1 AND L2 AND L3 AND L4 AND L5 AND L6
L8 0 SEA L1 AND L2
L9 1 SEA L1 AND L3
L10 0 SEA L1 AND L4
L11 1 SEA L1 AND L5
L12 2 SEA L1 AND L6
L13 0 SEA L2 AND L3
L14 0 SEA L2 AND L4
L15 0 SEA L2 AND L5
L16 0 SEA L2 AND L6
L17 0 SEA L3 AND L4
L18 1 SEA L3 AND L5
L19 1 SEA L3 AND L6
L20 0 SEA L4 AND L5
L21 0 SEA L4 AND L6
L22 1 SEA L5 AND L6
L23 2 SEA (L8 OR L9 OR L10 OR L11 OR L12 OR L13 OR L14 OR L15
 OR L16 OR L17 OR L18 OR L19 OR L20 OR L21 OR L22)
 SEL L23 1 RN

FILE 'REGISTRY' ENTERED AT 16:34:20 ON 24 NOV 2009

L24 16 SEA (12158-74-6/BI OR 125761-45-7/BI OR 25038-59-9/BI OR
L25 46649 SEA HO
L26 17652 SEA O4P
L27 2954 SEA L25 AND L26
L28 2748 SEA L27 AND ((CU OR FE OR MN OR SB OR ZN OR TI OR NI OR
 CO OR V OR BI OR AL OR CE OR GE OR GA OR CR OR IN OR
 SN)/ELS OR (A1 OR A2)/PG)
L29 3 SEA L24 AND PMS/CI

FILE 'HCA' ENTERED AT 17:09:53 ON 24 NOV 2009

L30 31408 SEA L28
L31 134724 SEA THERMOPLASTIC? OR THERMO(2A)PLASTIC?
L32 245670 SEA L29
L33 149 SEA L30 AND L31
L34 475 SEA L30 AND L32
L35 42 SEA L33 AND L34

FILE 'REGISTRY' ENTERED AT 17:10:51 ON 24 NOV 2009

L36 12 SEA L24 AND L28

FILE 'HCA' ENTERED AT 17:11:02 ON 24 NOV 2009

L37 77 SEA L36
L38 6 SEA L37 AND (L31 OR L32)

FILE 'REGISTRY' ENTERED AT 17:11:35 ON 24 NOV 2009

E PTT/CN
L39 1 SEA PTT/CN
E PBT/CN
L40 4 SEA PBT/CN
SEL L40 3 RN
L41 1 SEA 24968-12-5/BI
E PEN/CN
L42 4 SEA PEN/CN
SEL L42 4 RN
L43 1 SEA 24968-11-4/BI
E POLYETHYLENE/CN
L44 1 SEA POLYETHYLENE/CN
E POLYPROPYLENE/CN
L45 1 SEA POLYPROPYLENE/CN
E POLYVINYL CHLORIDE/CN
L46 1 SEA "POLYVINYL CHLORIDE"/CN
E POLYMETHYL METHACRYLATE/CN
E PMMA/CN
L47 1 SEA PMMA/CN
L48 7 SEA L39 OR L41 OR L43 OR L44 OR L45 OR L46 OR L47

FILE 'HCA' ENTERED AT 18:28:23 ON 24 NOV 2009

L49 471508 SEA L48
L50 1500 SEA L30 AND (L32 OR L49)
L51 79 SEA L50 AND L33
L52 8 SEA L37 AND L49
L53 10 SEA L38 OR L52
L54 75 SEA (L35 OR L51) NOT L53
L55 8 SEA 1808-2003/PY,PRY,AY AND L53
L56 45 SEA 1808-2003/PY,PRY,AY AND L54

=> FILE HCA

FILE 'HCA' ENTERED AT 18:34:16 ON 24 NOV 2009

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2009 AMERICAN CHEMICAL SOCIETY (ACS)

=> D L55 1-8 BIB ABS HITSTR HITIND RE

L55 ANSWER 1 OF 8 HCA COPYRIGHT 2009 ACS on STN

AN 143:27784 HCA Full-text

TI Production and use of **thermoplastics** with high IR
absorption

IN Hirthe, Bernd; Foehr, Kirsten; Bier, Thorsten; Saenger, Heike;
Otremba, Andrea; Wedler, Michael

PA Sachtleben Chemie G.m.b.H., Germany

SO PCT Int. Appl., 24 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	
PI	WO 2005052049	A1	20050609	WO 2004-EP13441	200411 26

<--

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA,
CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,
KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD,
SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,
AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ,
DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL,
PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG

DE 10356334 A1 20050623 DE 2003-10356334

				200311 28
			<--	
EP 1689810	A1	20060816	EP 2004-798094	200411 26
			<--	
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
CN 1886450	A	20061227	CN 2004-80035153	200411 26
			<--	
BR 2004017010	A	20070221	BR 2004-17010	200411 26
			<--	
JP 2007512401	T	20070517	JP 2006-540396	200411 26
			<--	
IN 2006CN01853	A	20070223	IN 2006-CN1853	200605 26
			<--	
KR 2007009540	A	20070118	KR 2006-712819	200606 26
			<--	
US 20070155881	A1	20070705	US 2006-580124	200607 18
			<--	
PRAI DE 2003-10356334	A	20031128	<--	
WO 2004-EP13441	W	20041126		
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT				
AB	Thermoplastics which can be readily heated by (near) IR contain phosphates of Cu, Fe, Mn, Sb, Zn, Ti, Ni, Co, V, Mg, Bi, Be, Al, Ce, Ba, Sr, Na, K, Ge, Ga, Ca, Cr, In, or Sn of specified stoichiometry and, optionally, water of crystn. Adding a soln. of 100 g CuSO4.5H2O in 400 mL H2O (temp. 75-85°) continuously to 105 g Na3PO4.12H2O in 600 mL H2O (75-85°) with strong stirring and stirring at 80° for 2 h gave Cu2PO4OH (I) with a good cryst. structure. The IR absorption of PET contg. I is shown as a function of wavelength.			
IT	12158-74-6P, Copper hydroxide phosphate (Cu2(OH)(PO4)) (IR absorbers for use in thermoplastics)			
RN	12158-74-6 HCA			

CN Copper hydroxide phosphate (Cu₂(OH)(PO₄)) (CA INDEX NAME)

Component	Ratio	Component Registry Number
HO	1	14280-30-9
O4P	1	14265-44-2
Cu	2	7440-50-8

IT 9003-53-6 9003-56-9, ABS 25038-59-9,
uses
(IR absorbers for use in thermoplastics)

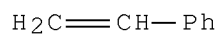
RN 9003-53-6 HCA

CN Benzene, ethenyl-, homopolymer (CA INDEX NAME)

CM 1

CRN 100-42-5

CMF C8 H8



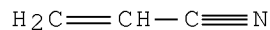
RN 9003-56-9 HCA

CN 2-Propenenitrile, polymer with 1,3-butadiene and ethenylbenzene (CA INDEX NAME)

CM 1

CRN 107-13-1

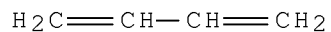
CMF C3 H3 N



CM 2

CRN 106-99-0

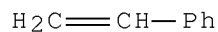
CMF C4 H6



CM 3

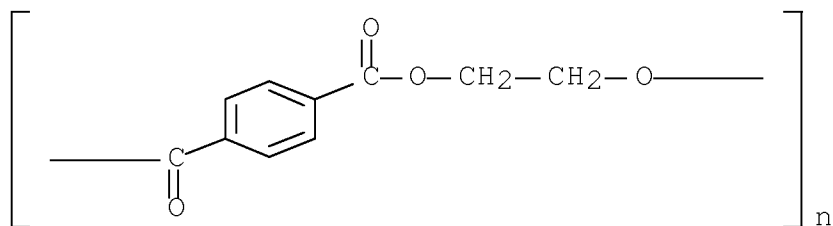
CRN 100-42-5

CMF C8 H8



RN 25038-59-9 HCA

CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (CA INDEX NAME)



IT 62683-60-7, Copper hydroxide phosphate ($\text{Cu}_5(\text{OH})_4(\text{PO}_4)_2$)

125761-45-7, Copper hydroxide phosphate ($\text{Cu}_3(\text{OH})_3(\text{PO}_4)$)

852929-90-9, Copper iron hydroxide phosphate

($\text{CuFe}_2(\text{OH})_2(\text{PO}_4)_2$) 852929-92-1 852929-94-3

852929-96-5 852929-98-7 852930-00-8

852930-02-0 852930-04-2 852930-06-4

(IR absorbers for use in thermoplastics)

RN 62683-60-7 HCA

CN Copper hydroxide phosphate ($\text{Cu}_5(\text{OH})_4(\text{PO}_4)_2$) (CA INDEX NAME)

Component		Ratio		Component
				Registry Number
=====+=====+=====				
HO		4		14280-30-9
O4P		2		14265-44-2
Cu		5		7440-50-8

RN 125761-45-7 HCA

CN Copper hydroxide phosphate ($\text{Cu}_3(\text{OH})_3(\text{PO}_4)$) (CA INDEX NAME)

Component	Ratio	Component
		Registry Number
HO	3	14280-30-9
O4P	1	14265-44-2
Cu	3	7440-50-8

RN 852929-90-9 HCA

CN Copper iron hydroxide phosphate ($\text{CuFe}_2(\text{OH})_2(\text{PO}_4)_2$) (CA INDEX NAME)

Component	Ratio	Component
		Registry Number
HO	2	14280-30-9
O4P	2	14265-44-2
Cu	1	7440-50-8
Fe	2	7439-89-6

RN 852929-92-1 HCA

CN Aluminum copper hydroxide phosphate ($\text{Al}_4\text{Cu}_3(\text{OH})_9(\text{PO}_4)_3$),
tetrahydrate (9CI) (CA INDEX NAME)

CM 1

CRN 852929-91-0

CMF Al . Cu . H O . O4 P

CCI TIS

CM 2

CRN 14280-30-9

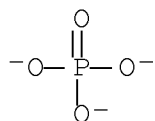
CMF H O

OH-

CM 3

CRN 14265-44-2

CMF O4 P



CM 4

CRN 7440-50-8

CMF Cu

Cu

CM 5

CRN 7429-90-5

CMF Al

Al

RN 852929-94-3 HCA

CN Aluminum copper hydroxide phosphate (Al₃Cu₃(OH)₃(PO₄)₄),
tetrahydrate (9CI) (CA INDEX NAME)

CM 1

CRN 852929-93-2

CMF Al . Cu . H O . 04 P

CCI TIS

CM 2

CRN 14280-30-9

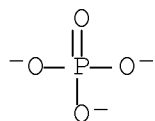
CMF H O

OH-

CM 3

CRN 14265-44-2

CMF 04 P



CM 4

CRN 7440-50-8

CMF Cu

Cu

CM 5

CRN 7429-90-5

CMF Al

Al

RN 852929-96-5 HCA

CN Copper iron hydroxide phosphate (CuFe6(OH)8(P04)4), tetrahydrate
(9CI) (CA INDEX NAME)

CM 1

CRN 852929-95-4

CMF Cu . Fe . H O . 04 P

CCI TIS

CM 2

CRN 14280-30-9

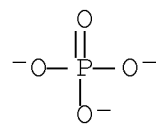
CMF H O

OH-

CM 3

CRN 14265-44-2

CMF O4 P



CM 4

CRN 7440-50-8

CMF Cu

Cu

CM 5

CRN 7439-89-6

CMF Fe

Fe

RN 852929-98-7 HCA

CN Calcium copper hydroxide phosphate (CaCu6(OH)6(HPO4)(PO4)2),
trihydrate (9CI) (CA INDEX NAME)

CM 1

CRN 852929-97-6

CMF Ca . Cu . H O4 P . H O . O4 P

CCI TIS

CM 2

CRN 14280-30-9

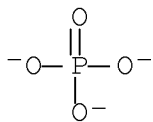
CMF H O

OH-

CM 3

CRN 14265-44-2

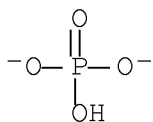
CMF O4 P



CM 4

CRN 14066-19-4

CMF H O4 P



CM 5

CRN 7440-70-2

CMF Ca

Ca

CM 6

CRN 7440-50-8

CMF Cu

Cu

RN 852930-00-8 HCA

CN Copper magnesium hydroxide phosphate (CuMg(OH)(PO4)), hydrate (2:5)
(CA INDEX NAME)

CM 1

CRN 852929-99-8

CMF Cu . H O . Mg . O4 P

CCI TIS

CM 2

CRN 14280-30-9

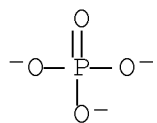
CMF H O

OH-

CM 3

CRN 14265-44-2

CMF O4 P



CM 4

CRN 7440-50-8

CMF Cu

Cu

CM 5

CRN 7439-95-4

CMF Mg

Mg

RN 852930-02-0 HCA

CN Copper zinc hydroxide phosphate (Cu0-2Zn1-3(OH)3(PO4)), dihydrate
(9CI) (CA INDEX NAME)

CM 1

CRN 852930-01-9

CMF Cu . H O . 04 P . Zn

CCI TIS

CM 2

CRN 14280-30-9

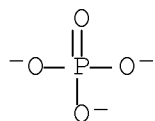
CMF H O

OH-

CM 3

CRN 14265-44-2

CMF 04 P



CM 4

CRN 7440-66-6

CMF Zn

Zn

CM 5

CRN 7440-50-8

CMF Cu

Cu

RN 852930-04-2 HCA

CN Copper zinc hydroxide phosphate (Cu0-5Zn1-6(OH)6(P04)2), monohydrate
(9CI) (CA INDEX NAME)

CM 1

CRN 852930-03-1

CMF Cu . H O . 04 P . Zn

CCI TIS

CM 2

CRN 14280-30-9

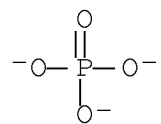
CMF H O

OH-

CM 3

CRN 14265-44-2

CMF O4 P



CM 4

CRN 7440-66-6

CMF Zn

Zn

CM 5

CRN 7440-50-8

CMF Cu

Cu

RN 852930-06-4 HCA

CN Aluminum copper zinc hydroxide phosphate (Al6(Cu,Zn)(OH)8(PO4)4),
tetrahydrate (9CI) (CA INDEX NAME)

CM 1

CRN 852930-05-3

CMF Al . Cu . H O . 04 P . Zn

CCI TIS

CM 2

CRN 14280-30-9

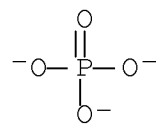
CMF H O

OH-

CM 3

CRN 14265-44-2

CMF O4 P



CM 4

CRN 7440-66-6

CMF Zn

Zn

CM 5

CRN 7440-50-8
CMF Cu

Cu

CM 6

CRN 7429-90-5
CMF Al

Al

IC ICM C08K003-00
ICS C08K003-04; C08G063-00
CC 38-3 (Plastics Fabrication and Uses)
ST IR absorber use **thermoplastic**; PET IR absorber; metal
hydroxide phosphate IR absorber; copper hydroxide phosphate IR
absorber
IT Polyamides, uses
Polycarbonates, uses
Polyesters, uses
Polyoxyarylenes
Polythioarylenes
Polyurethanes, uses
(IR absorbers for use in **thermoplastics**)
IT Optical materials
(IR absorbers; IR absorbers for use in **thermoplastics**)
IT IR materials
(absorbers; IR absorbers for use in **thermoplastics**)
IT Hydroxides (inorganic)
Phosphates, uses
(metal hydroxide phosphates; IR absorbers for use in
thermoplastics)
IT Acetals
(polyacetals, nonpolymeric; IR absorbers for use in
thermoplastics)
IT Vinyl compounds, uses
(polymers; IR absorbers for use in **thermoplastics**)
IT Plastics, uses
(**thermoplastics**; IR absorbers for use in

thermoplastics)

IT 12158-74-6P, Copper hydroxide phosphate ($\text{Cu}_2(\text{OH})(\text{PO}_4)$)
(IR absorbers for use in thermoplastics)
IT 79-10-7D, Acrylic acid, esters, polymers 9003-53-6
9003-56-9, ABS 25038-59-9, uses
(IR absorbers for use in thermoplastics)
IT 62683-60-7, Copper hydroxide phosphate ($\text{Cu}_5(\text{OH})_4(\text{PO}_4)_2$)
125761-45-7, Copper hydroxide phosphate ($\text{Cu}_3(\text{OH})_3(\text{PO}_4)$)
852929-90-9, Copper iron hydroxide phosphate
($\text{CuFe}_2(\text{OH})_2(\text{PO}_4)_2$) 852929-92-1 852929-94-3
852929-96-5 852929-98-7 852930-00-8
852930-02-0 852930-04-2 852930-06-4
(IR absorbers for use in thermoplastics)

RE CITED REFERENCES

- (1) Anderson; US 3980611 A 1976 HCA
- (2) Breitenfellner; US 4456723 A 1984 HCA
- (3) Eastman Kodak Company; EP 0410907 A 1991 HCA
- (4) General Electric Company; EP 0414944 A 1991 HCA
- (5) General Electric Company; EP 0604074 A 1994 HCA
- (6) Kawai; US 4981897 A 1991 HCA
- (7) Pengilly; US 4408004 A 1983 HCA
- (8) Pengilly; US 4535118 A 1985 HCA
- (9) Seiler; US 4672086 A 1987 HCA
- (10) Talibuddin, S; US 20020111409 A1 2002

L55 ANSWER 2 OF 8 HCA COPYRIGHT 2009 ACS on STN

AN 134:325492 HCA Full-text

TI Oxygen scavenging compositions with low migration

IN Ebner, Cynthia Louise; Blinka, Thomas Andrew

PA W. R. Grace & Co.-Conn., USA

SO U.S., 24 pp., Division of U.S. Ser. No. 753,990.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	
PI	US 6228284	B1	20010508	US 1998-183239	199810 30
				<--	
	CA 2240113	C	19970626	CA 1996-2240113	199612 10
				<--	
	CA 2240113	A1	19970626		

WO 9722469	A1	19970626	WO 1996-US19430	199612 10
				<--
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN			
RW:	KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI			
EP 898508	A1	19990303	EP 1996-942911	199612 10
				<--
EP 898508	B1	20060308		
R:	AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, NL, PT, SE			
JP 2002515822	T	20020528	JP 1997-522853	199612 10
				<--
CN 1090223	C	20020904	CN 1996-199056	199612 10
				<--
AT 319768	T	20060315	AT 1996-942911	199612 10
				<--
ES 2259183	T3	20060916	ES 1996-942911	199612 10
				<--
IN 1996DE02785	A	20060602	IN 1996-DE2785	199612 12
				<--
ZA 9610521	A	19970624	ZA 1996-10521	199612 13
				<--
TW 486427	B	20020511	TW 1996-85115533	199612 16
				<--
HK 1017638	A1	20030509	HK 1999-102783	

<--

IN 2005DE01611 A 20070511 IN 2005-DE1611

	US	1995-573086	B2	19951215	<--
PRAI	US	1995-573335	B2	19951215	<--
	US	1995-573338	B2	19951215	<--
	US	1996-753990	A3	19961203	<--
	WO	1996-US19430	W	19961210	<--
	IN	1996-DE2785	A3	19961212	<--
AB	An improved oxygen scavenging compn. and packaging container formed therefrom is disclosed. The container is suitable for storage of oxygen sensitive materials and has as part of its exposed interior surface a compn. composed of a polymeric matrix with a oxygen scavenger and a substantially water-insol. transition metal contg. compd. distributed therein.				
IT	12158-74-6, Copper hydroxide phosphate (Cu ₂ (OH)PO ₄) (oxygen scavenging compns. with low migration)				
RN	12158-74-6 HCA				
CN	Copper hydroxide phosphate (Cu ₂ (OH)(PO ₄)) (CA INDEX NAME)				

Component	Ratio	Component Registry Number
HO	1	14280-30-9
O4P	1	14265-44-2
Cu	2	7440-50-8

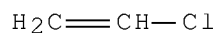
```

IT      9002-86-2, Polyvinyl chloride 9002-88-4,
        Polyethylene
        (oxygen scavenging compns. with low migration)
RN      9002-86-2 HCA
CN      Ethene, chloro-, homopolymer (CA INDEX NAME)

```

CM 1

CRN 75-01-4
CMF C2 H3 C1

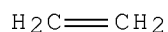


RN 9002-88-4 HCA
CN Ethene, homopolymer (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4



IC ICM C02F001-70

ICS B32B003-02

INCL 252188280

CC 17-4 (Food and Feed Chemistry)

IT 71-48-7, Cobalt acetate 102-54-5, Ferrocene 147-14-8, Copper phthalocyanine 149-11-1 513-79-1, Cobalt carbonate (CoCo3) 527-09-3, Copper gluconate 555-36-2 557-05-1, Zinc stearate 660-60-6 1184-64-1, Copper carbonate 1307-96-6, Cobalt oxide (CoO), uses 1309-37-1, Iron oxide (Fe2O3), uses 1313-99-1, Nickel oxide (NiO), uses 1317-38-0, Copper oxide (CuO), uses 1317-39-1, Copper oxide (Cu2O), uses 2800-96-6, Tin(IV)acetate 2944-66-3, Ferric oxalate 2944-68-5, Ferric tartrate, uses 3251-23-8, Copper nitrate (Cu(NO3)2) 3271-87-2, Copper palmitate 3333-67-3, Nickel carbonate 7439-89-6D, Iron, water-insol. compds., uses 7439-96-5D, Manganese, water-insol. compds., uses 7440-02-0D, Nickel, water-insol. compds., uses 7440-20-2D, Scandium, water-insol. compds., uses 7440-31-5D, Tin, water-insol. compds., uses 7440-32-6D, Titanium, water-insol. compds., uses 7440-47-3D, Chromium, water-insol. compds., uses 7440-48-4D, Cobalt, water-insol. compds., uses 7440-50-8D, Copper, water-insol. compds., uses 7440-62-2D, Vanadium, water-insol. compds., uses 7440-66-6D, Zinc, water-insol. compds., uses 7447-39-4, Copper chloride (CuCl2), uses 7786-81-4, Nickel sulfate (NiSO4) 10026-22-9, Cobalt nitrate hexahydrate 10031-48-8, Cupric phosphate trihydrate 10124-43-3, Cobalt sulfate (CoSO4) 10402-15-0, Copper citrate 10450-55-2 11104-61-3, Cobalt oxide 12054-48-7, Nickel hydroxide (Ni(OH)2) ~~12158-74-6~~, Copper hydroxide phosphate (Cu2(OH)PO4) 12259-21-1, Iron oxide (Fe2O3), hydrate 13395-16-9 13455-36-2, Cobalt phosphate (CO3(PO4)2) 13463-10-0, Ferric phosphate dihydrate 13479-54-4, Copper glycinate 13520-56-4, Ferric sulfate nonahydrate 13767-34-5, Copper molybdenum oxide (CuMoO4) 14024-18-1, Ferric acetylacetonate 14024-63-6 14167-18-1 14534-87-3, Ferric benzoate 15275-07-7, Iron EDTA 16009-86-2 20427-59-2, Copper

hydroxide (Cu(OH)2) 21006-12-2, Iron sulfite (FeSO3) trihydrate
21041-93-0, Cobalt hydroxide (Co(OH)2) 27004-40-6, Copper
tartrate, uses 28356-46-9 36673-17-3 51395-10-9, Copper EDTA
53106-99-3 59561-20-5 63815-61-2 336841-56-6, Copper tin oxide
(CuSnO4)

(oxygen scavenging compns. with low migration)

IT 75-01-4D, Vinyl chloride, copolymers 78-79-5, Isoprene, biological
studies 7429-90-5D, Aluminum, foil, plastic laminates, biological
studies 7758-89-6, Copper chloride (CuCl) 9002-86-2,
Polyvinyl chloride 9002-88-4, Polyethylene 10294-49-2,
Copper sulfite (Cu2SO3) monohydrate 12019-08-8, Copper titanium
oxide (CuTiO3) 24937-78-8, Ethylene-vinyl acetate copolymer
105729-79-1, Styrene-isoprene block copolymer 106107-54-4,
Styrene-butadiene block copolymer 106108-28-5,
Styrene-ethylene-butylene block copolymer 336881-79-9, Darex CR
3692M 337308-53-9, Daraform 6491

(oxygen scavenging compns. with low migration)

RE CITED REFERENCES

- (1) Anon; WO 9117044 A1 1991 HCA
- (2) Ebner; US 5977212 1999 HCA
- (3) Hofeldt; US 5075362 1991 HCA
- (4) Nakamura; US 4384972 1983 HCA
- (5) Zenner; US 5202052 1993 HCA
- (6) Zenner; US 5364555 1994 HCA

L55 ANSWER 3 OF 8 HCA COPYRIGHT 2009 ACS on STN

AN 126:252333 HCA Full-text

OREF 126:48765a,48768a

TI Using laser-inscribable labels for marking rubber parts, especially
tires

IN Koops, Arne; Ofer, Ulrich; Kuelper, Klaus; Kreft, Christian

PA Beiersdorf A.-G., Germany

SO Ger. Offen., 8 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	

PI	DE 19531332	A1	19970227	DE 1995-19531332	199508 25
				<--	
	EP 760297	A2	19970305	EP 1996-112586	199608 03

```

                                <--
EP 760297          A3      19970611
EP 760297          B1      19991201
    R:  DE, ES, FR, GB, IT, SE
ES 2140767          T3      20000301      ES 1996-112586
                                           199608
                                           03
                                <--
JP 09068924        A      19970311      JP 1996-235765
                                           199608
                                           20
                                <--

```

```

PRAI DE 1995-19531332      A      19950825  <--
AB   Labels such as barcode labels comprise a carrier layer based on a
      vulcanizable light-colored rubber compn. contg. a additive that
      changes color in laser light (such as Cu(II) hydroxide phosphate or
      coated pearlescent pigment), which is vulcanizable along with the
      rubber part. The carrier layer is optionally covered with a
      protective layer transparent to visible and IR radiation, a pressure-
      sensitive adhesive layer for temporary bonding of the label to the
      rubber part before vulcanization, and a release sheet on the adhesive
      layer. All the sides of the carrier layer except the side to be
      irradiated with the laser may be coated with a barrier layer to
      prevent migration of plasticizers and similar materials out of the
      label.
IT   12158-74-6, Copper hydroxide phosphate (Cu2(OH)(PO4))
      (laser-sensitive compd.; using laser-inscribable vulcanizable
      labels for marking rubber parts, esp. tires)
RN   12158-74-6  HCA
CN   Copper hydroxide phosphate (Cu2(OH)(PO4))  (CA INDEX NAME)

```

Component	Ratio	Component Registry Number
HO	1	14280-30-9
O4P	1	14265-44-2
Cu	2	7440-50-8

```

IT   9002-86-2, PVC
      (plasticizer-migration-prevention layer; using laser-inscribable
      vulcanizable labels for marking rubber parts, esp. tires)
RN   9002-86-2  HCA
CN   Ethene, chloro-, homopolymer  (CA INDEX NAME)

```

CM 1

CRN 75-01-4

CMF C2 H3 C1

H₂C=CH-C1

IC ICM G09F003-02
ICS G09F003-04
ICA B60C001-00; C08J003-24; C08J007-00; B32B025-08; B32B027-36;
B32B027-34; B32B027-32
ICI C08L009-06, C08L023-16, C08L023-22
CC 39-13 (Synthetic Elastomers and Natural Rubber)
IT 12158-74-6, Copper hydroxide phosphate (Cu₂(OH)(PO₄))
(laser-sensitive compd.; using laser-inscribable vulcanizable
labels for marking rubber parts, esp. tires)
IT 7429-90-5, Aluminum, uses 9002-86-2, PVC
(plasticizer-migration-prevention layer; using laser-inscribable
vulcanizable labels for marking rubber parts, esp. tires)

RE CITED REFERENCES

- (1) Anon; EP 0190997 A2 HCA
(2) Anon; DE 3917294 A1 HCA
(3) Anon; DE 4027192 C1 HCA

OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2
CITINGS)

L55 ANSWER 4 OF 8 HCA COPYRIGHT 2009 ACS on STN

AN 126:132208 HCA Full-text

OREF 126:25541a,25544a

TI Coated pigments as fillers for laser-markable plastics

IN Schmidt, Christoph; Reynders, Peter; Schoen, Sabine

PA Merck Patent Gmbh, Germany

SO Eur. Pat. Appl., 6 pp.

CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	
PI	EP 750012	A1	19961227	EP 1996-109256	199606 10

<--

R: DE, ES, FI, FR, GB, IT
DE 19522397 A1 19970102 DE 1995-19522397

199506

				23
			<--	
BR 9602842	A	19980422	BR 1996-2842	
				199606
				19
			<--	
CA 2179698	A1	19961224	CA 1996-2179698	
				199606
				21
			<--	
JP 09012776	A	19970114	JP 1996-179860	
				199606
				21
			<--	
CN 1144230	A	19970305	CN 1996-108795	
				199606
				21
			<--	
US 5928780	A	19990727	US 1996-668146	
				199606
				21
			<--	
TW 383323	B	20000301	TW 1996-85107482	
				199606
				21

<--

PRAI DE 1995-19522397 A 19950623 <--

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Plastics which can be marked by lasers with high contrast are filled with non-glossy, layered silicate pigments, having rough surfaces, which are coated with oxides, Iron Blue, and/or basic Cu phosphate. Dry-milled mica (95% with av. diam. <24 µm) was coated with 50% Turnbull's Blue by pptn. in H2O. Polypropylene contg. 0.5% this mica gave injection moldings which could be marked by a CO2 laser (energy d. .apprx.3 J/cm2) with high contrast.

IT 9002-88-4 9003-07-0
 (coated pigments as fillers for laser-markable plastics)

RN 9002-88-4 HCA

CN Ethene, homopolymer (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4

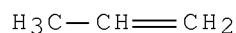


RN 9003-07-0 HCA
CN 1-Propene, homopolymer (CA INDEX NAME)

CM 1

CRN 115-07-1

CMF C3 H6



IT 12158-74-6, Copper hydroxide phosphate ($\text{Cu}_2(\text{OH})(\text{PO}_4)$)
(coating; coated pigments as fillers for laser-markable plastics)
RN 12158-74-6 HCA
CN Copper hydroxide phosphate ($\text{Cu}_2(\text{OH})(\text{PO}_4)$) (CA INDEX NAME)

Component	Ratio	Component
		Registry Number
HO	1	14280-30-9
O4P	1	14265-44-2
Cu	2	7440-50-8

IC ICM C08K009-02
CC 37-6 (Plastics Manufacture and Processing)
IT 9002-88-4 9003-07-0
(coated pigments as fillers for laser-markable plastics)
IT 1309-64-4, Antimony oxide (Sb_2O_3), uses 1310-39-0, Pseudobrookite
12158-74-6, Copper hydroxide phosphate ($\text{Cu}_2(\text{OH})(\text{PO}_4)$)
13463-67-7, Titanium dioxide, uses 18282-10-5, Tin dioxide
65505-26-2, C.I. Pigment Green 16
(coating; coated pigments as fillers for laser-markable plastics)
OSC.G 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6
CITINGS)

L55 ANSWER 5 OF 8 HCA COPYRIGHT 2009 ACS on STN
AN 125:45171 HCA Full-text
OREF 125:8495a,8498a
TI Method for marking molded bodies using copper phosphate as additive
IN Welz, Martin; Prissok, Frank
PA Elastogran Gmbh, Germany
SO Eur. Pat. Appl., 10 pp.

CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	
PI	EP 706897	A1	19960417	EP 1995-115822	199510 07
				<--	
	EP 706897	B1	19970917		
	R: BE, DE, FR, GB, NL				
	DE 4436897	A1	19960418	DE 1994-4436897	199410 15
				<--	
	US 5630979	A	19970520	US 1995-542186	199510 12
				<--	

PRAI DE 1994-4436897 A 19941015 <--

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The title method involves a process for adding Cu phosphate additives to a **thermoplastic** polyurethane elastomer or its ≤45 % mixt. for improving inscribe-ability and a process for UV laser-irradn. The method provided molded bodies with high contrast, good contour shape and good abrasion-resistance.

IT 12158-74-6, Copper hydroxide phosphate (Cu₂(OH)(PO₄))
125761-45-7, Copper hydroxide phosphate (Cu₃(OH)₃(PO₄))
(additive to photosensitive layer for making molded bodies)

RN 12158-74-6 HCA

CN Copper hydroxide phosphate (Cu₂(OH)(PO₄)) (CA INDEX NAME)

Component	Ratio	Component
		Registry Number
HO	1	14280-30-9
O4P	1	14265-44-2
Cu	2	7440-50-8

RN 125761-45-7 HCA

CN Copper hydroxide phosphate (Cu₃(OH)₃(PO₄)) (CA INDEX NAME)

Component	Ratio	Component
		Registry Number
HO	1	14280-30-9
O4P	1	14265-44-2
Cu	2	7440-50-8

HO		3		14280-30-9
O4P		1		14265-44-2
Cu		3		7440-50-8

IC ICM B41M001-30
ICS C08K003-32

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

ST ~~thermoplastic~~ polyurethane elastomer copper phosphate additive

IT ~~Plastics~~, molded
(~~thermo~~-, method for marking molded bodies using copper phosphate as additive)

IT 7631-86-9, Silica, uses ~~12158-74-6~~, Copper hydroxide phosphate (Cu₂(OH)(PO₄)) 13463-67-7, Titanium dioxide, uses 18282-10-5, Tin oxide (SnO₂) ~~125761-45-7~~, Copper hydroxide phosphate (Cu₃(OH)₃(PO₄)) 177969-12-9
(additive to photosensitive layer for making molded bodies)

OSC.G 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)

L55 ANSWER 6 OF 8 HCA COPYRIGHT 2009 ACS on STN

AN 114:144815 HCA Full-text

OREF 114:24579a,24582a

TI Polymers which can be marked with laser light

IN Schueler, Ralf; Herkt-Maetzky, Christian; Bartz, Wilfred

PA Huels A.-G., Germany

SO Ger. Offen., 4 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	
PI	DE 3917294	A1	19901129	DE 1989-3917294	198905 27
				<--	
	US 5053440	A	19911001	US 1990-504840	199004 05
				<--	
	EP 400305	A2	19901205	EP 1990-106763	199004 09

			<--	
EP 400305	A3	19910911		
EP 400305	B1	19960710		
EP 400305	B2	20010321		
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
AT 140189	T	19960715	AT 1990-106763	19900409
<--				
ES 2088917	T3	19961001	ES 1990-106763	19900409
<--				
CA 2017545	A1	19901127	CA 1990-2017545	19900525
<--				
CA 2017545	C	20010918		
BR 9002465	A	19910813	BR 1990-2465	19900525
<--				
KR 162082	B1	19990115	KR 1990-7588	19900525
<--				
JP 03024161	A	19910201	JP 1990-135536	19900528

JP 2947878 B2 19990913
PRAI DE 1989-3917294 A 19890527 <--

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The title polymers, which can be marked until a predetd. min. value of contrast is achieved, contain 0.2-5% additive having little or no color at 400-750 nm but giving markings with high contrast when exposed to laser light outside of the visible spectrum. Poly(butylene terephthalate) contg. 1 phr Cu₂(PO₄)₂.Cu(OH)₂ was exposed to 100 J/cm² pulsed laser light (1064 nm, 20 W, pulse frequency 8 kHz) to give markings with contrast 7.6.

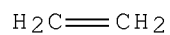
IT 9002-88-4 9003-07-0 9003-53-6
24968-12-5, 1,4-Butanediol-terephthalic acid copolymer, SRU
(laser marking of, with high contrast, additives for)

RN 9002-88-4 HCA

CN Ethene, homopolymer (CA INDEX NAME)

CRN 74-85-1

CMF C2 H4



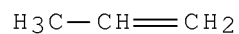
RN 9003-07-0 HCA

CN 1-Propene, homopolymer (CA INDEX NAME)

CM 1

CRN 115-07-1

CMF C3 H6



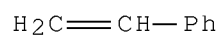
RN 9003-53-6 HCA

CN Benzene, ethenyl-, homopolymer (CA INDEX NAME)

CM 1

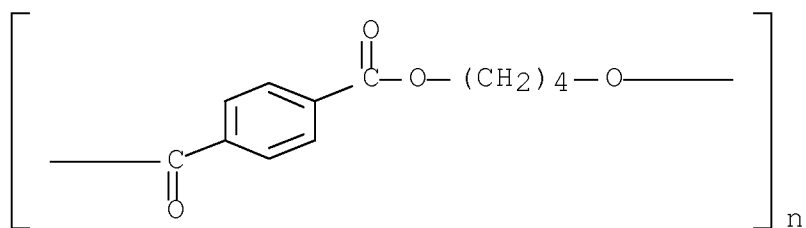
CRN 100-42-5

CMF C8 H8



RN 24968-12-5 HCA

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (CA INDEX NAME)



IT 12158-74-6, Copper hydroxide phosphate (Cu₂(OH)(PO₄))
(plastics contg., for laser marking with high contrast)
RN 12158-74-6 HCA
CN Copper hydroxide phosphate (Cu₂(OH)(PO₄)) (CA INDEX NAME)

Component	Ratio	Component
		Registry Number
HO	1	14280-30-9
O4P	1	14265-44-2
Cu	2	7440-50-8

IC ICM C08K011-00
ICS C08K003-32; C08K003-22; B44C001-02
ICA C08J007-00; B29C071-04
ICI C08K003-00, C08L067-02, C08L023-06, C08L023-12, C08L025-06,
C08L077-00
CC 37-6 (Plastics Manufacture and Processing)
IT 9002-88-4 9003-07-0 9003-53-6
24937-16-4, Nylon 12 24968-12-5,
1,4-Butanediol-terephthalic acid copolymer, SRU 25038-54-4,
Poly[imino(1-oxo-1,6-hexanediyl)], uses and miscellaneous
25038-74-8 26062-94-2, 1,4-Butanediol-terephthalic acid copolymer
32131-17-2, Nylon 66, uses and miscellaneous
(laser marking of, with high contrast, additives for)
IT 1309-37-1, Iron oxide (Fe₂O₃), uses and miscellaneous 1313-27-5,
Molybdenum trioxide, uses and miscellaneous 8007-18-9, Titanate
yellow 12158-74-6, Copper hydroxide phosphate
(Cu₂(OH)(PO₄)) 13463-67-7, Titanium oxide (TiO₂), uses and
miscellaneous
(plastics contg., for laser marking with high contrast)

RE CITED REFERENCES

- (1) Anon; EP 0190997 A2 HCA
(2) Anon; US 4567220 A HCA

OSC.G 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS RECORD (11
CITINGS)

L55 ANSWER 7 OF 8 HCA COPYRIGHT 2009 ACS on STN

AN 103:39322 HCA Full-text

OREF 103:6369a,6372a

TI Basic copper phosphate with a bright inherent color and a medium
grain size < 10 μ

IN Schueler, Ralf; Maahs, Guenther

PA Chemische Werke Huels A.-G. , Fed. Rep. Ger.

SO Ger. Offen., 8 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO. ----- -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
PI	DE 3342292	A1	19850530	DE 1983-3342292	198311 23
				<--	
	EP 143933	A1	19850612	EP 1984-111457	198409 26
				<--	
	EP 143933	B1	19870121		
	R: AT, BE, CH, DE, FR, GB, IT, LI, NL				
	AT 25067	T	19870215	AT 1984-111457	198409 26
				<--	
	US 4567220	A	19860128	US 1984-664838	198410 25
				<--	
	JP 60131815	A	19850713	JP 1984-243569	198411 20
				<--	
	BR 8405945	A	19850917	BR 1984-5945	198411 22
				<--	
PRAI	DE 1983-3342292	A	19831123	<--	
	EP 1984-111457	A	19840926	<--	

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Bright-colored basic Cu phosphate (I) of the compn. $\text{Cu}_3(\text{PO}_4)_2 \cdot \text{Cu}(\text{OH})_2$ with an av. grain size $<10\mu$ was obtained by treating an aq. suspension of $\text{CuCO}_3 \cdot \text{Cu}(\text{OH})_2$ or $2 \text{ CuCO}_3 \cdot \text{Cu}(\text{OH})_2$ (bulk d. $>800 \text{ g/L}$) with H_3PO_4 at $<70^\circ$, heating the reaction mixt. to $90-100^\circ$ for the removal of residual CO_2 , sepn. of I from the aq. phase, and drying at $\leq 1 \text{ atm}$ and $100-120^\circ$. The I is used as a smoke suppressant in **thermoplastics**, esp. in poly(vinyl chloride). Thus, 84 g of I contg. Cu 52.9, P 12.9, and H 0.36% consisting of .apprx. 3μ long and .apprx. 0.3μ thick crystals was obtained by treating on aq. suspension contg. 83 g $\text{CuCO}_3 \cdot \text{Cu}(\text{OH})_2$ (bulk d. .apprx. 500 g/L) in 500 mL H_2O under stirring at 55° for 40 min, followed by 30 min boiling,

filtering, and drying at <1 atm and 100°. The pH of the reaction mixt. decreased during stirring from 8 to 4 and the color of the reaction product turned from light blue to light green and finely to almost white.

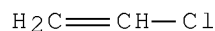
IT 12158-74-6P
 (prepn. of, from basic copper carbonate and phosphoric acid)
 RN 12158-74-6 HCA
 CN Copper hydroxide phosphate (Cu₂(OH)(PO₄)) (CA INDEX NAME)

Component	Ratio	Component Registry Number
HO	1	14280-30-9
O4P	1	14265-44-2
Cu	2	7440-50-8

IT 9002-86-2
 (smoke suppressant for, basic copper phosphate as)
 RN 9002-86-2 HCA
 CN Ethene, chloro-, homopolymer (CA INDEX NAME)

CM 1

CRN 75-01-4
 CMF C2 H3 Cl



IC ICM C01B025-37
 ICS C01G003-00; C08K003-32; C08L027-06
 CC 49-5 (Industrial Inorganic Chemicals)
 Section cross-reference(s): 38
 ST copper phosphate smoke suppressant thermoplastic;
 polyvinyl chloride smoke suppressant
 IT 12158-74-6P
 (prepn. of, from basic copper carbonate and phosphoric acid)
 IT 9002-86-2
 (smoke suppressant for, basic copper phosphate as)
 OSC.G 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3
 CITINGS)

L55 ANSWER 8 OF 8 HCA COPYRIGHT 2009 ACS on STN
 AN 98:127196 HCA Full-text
 OREF 98:19397a,19400a

TI Copper composition-containing poly(vinyl chloride) mixture
 IN Schueler, Ralf; Maahs, Guenther
 PA Chemische Werke Huels A.-G. , Fed. Rep. Ger.
 SO Eur. Pat. Appl., 12 pp.
 CODEN: EPXXDW

DT Patent
 LA German

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
EP 63768	A1	19821103	EP 1982-103246	198204 17
<--				
EP 63768	B1	19840725		
R: AT, BE, CH, DE, FR, GB, IT, NL				
AT 8649	T	19840815	AT 1982-103246	198204 17
<--				
JP 57182344	A	19821110	JP 1982-64823	198204 20
<--				
DE 3214960	A1	19821118	DE 1982-3214960	198204 22
<--				
BR 8202449	A	19830412	BR 1982-2449	198204 28
<--				
US 4390654	A	19830628	US 1982-372762	198204 28

<--

PRAI DE 1981-3116969 A 19810429 <--
 EP 1982-103246 A 19820417 <--

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The compd. $\text{Cu}_3(\text{PO}_4)_2 \cdot \text{Cu}(\text{OH})_2$ (I) is added to PVC [9002-86-2] compns. to inhibit smoke formation during burning. Thus, a mixt. of PVC 100, I 5, chalk 12, pigment 6, and additives 6.3 parts produced 57% less smoke during burning than a mixt. contg. no I. The I-contg. mixt. had limiting O index 54% in burning tests.

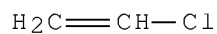
IT 9002-86-2

(smoke inhibitors in burning of, copper hydroxide phosphate as)

RN 9002-86-2 HCA
CN Ethene, chloro-, homopolymer (CA INDEX NAME)

CM 1

CRN 75-01-4
CMF C2 H3 Cl



IT 12158-74-6
(smoke inhibitors, for PVC during burning)
RN 12158-74-6 HCA
CN Copper hydroxide phosphate (Cu₂(OH)(PO₄)) (CA INDEX NAME)

Component	Ratio	Component Registry Number
HO	1	14280-30-9
O4P	1	14265-44-2
Cu	2	7440-50-8

IC C08L027-06; C08K003-32
CC 37-6 (Plastics Manufacture and Processing)
IT 9002-86-2
(smoke inhibitors in burning of, copper hydroxide phosphate as)
IT 12158-74-6
(smoke inhibitors, for PVC during burning)
OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2
CITINGS)

=> D L56 1-45 BIB ABS HITSTR HITIND

L56 ANSWER 1 OF 45 HCA COPYRIGHT 2009 ACS on STN
AN 147:243473 HCA Full-text
TI Dental filling material comprising thermoplastic polymer
IN Jia, Weitao; Karmaker, Ajit
PA Pentron Clinical Technologies, LLC, USA
SO U.S. Pat. Appl. Publ., 22 pp., Cont.-in-part of U.S. Ser. No.
914,057.
CODEN: USXXCO
DT Patent

LA English
FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	
PI	US 20070184405	A1	20070809	US 2006-614233	200612 21
				<--	
	US 20030113686	A1	20030619	US 2002-279609	200210 24
				<--	
	US 7204874	B2	20070417		
	US 20030124483	A1	20030703	US 2002-304371	200211 26
				<--	
	US 7204875	B2	20070417		
	US 20050069836	A1	20050331	US 2003-465416	200306 18
				<--	
	US 7211136	B2	20070501		
	US 20050066854	A1	20050331	US 2004-914057	200408 06
				<--	
	US 7303817	B2	20071204		
PRAI	US 2001-336500P	P	20011024	<--	
	US 2002-279609	A2	20021024	<--	
	US 2002-304371	A2	20021126	<--	
	US 2003-465416	A2	20030618	<--	
	US 2004-914057	A2	20040806		

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB This invention relates to dental filling material comprising an inner core and outer layer of material disposed and surrounding the inner core, both the inner core and outer layer of material each contg. a thermoplastic polymer. The thermoplastic polymer may be biodegradable. A bioactive substance may also be included in the filling material. The thermoplastic polymer acts as a matrix for the bioactive substance. The compn. may include other polymeric resins, fillers, plasticizers and other additives typically used in dental materials. The filling material is used for the filing of root canals.

IT 1306-06-S, Hydroxyapatite 9003-56-9,
Acrylonitrile-butadiene-styrene copolymer

(dental filling material comprising thermoplastic polymer)

RN 1306-06-5 HCA

CN Hydroxylapatite (Ca₅(OH)(PO₄)₃) (CA INDEX NAME)

Component	Ratio	Component Registry Number
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

RN 9003-56-9 HCA

CN 2-Propenenitrile, polymer with 1,3-butadiene and ethenylbenzene (CA INDEX NAME)

CM 1

CRN 107-13-1

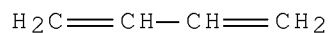
CMF C3 H3 N



CM 2

CRN 106-99-0

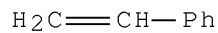
CMF C4 H6



CM 3

CRN 100-42-5

CMF C8 H8



INCL 433081000; 428403000; 428323000; 525906000; 106035000

CC 63-7 (Pharmaceuticals)

ST **thermoplastic** polymer dental filling

IT Polyesters
 (arom.; dental filling material comprising **thermoplastic**
 polymer)

IT Hydrocarbons
 (chloro; dental filling material comprising **thermoplastic**
 polymer)

IT Anti-inflammatory agents
 Antibacterial agents
 Antibiotics
 Dyes
 Pigments, nonbiological
 Plasticizers
 (dental filling material comprising **thermoplastic**
 polymer)

IT Acrylic polymers
 Apatite-group minerals
 Aromatic hydrocarbons
 Epoxides
 Polyamides
 Polyanhydrides
 Polycarbonates
 Polyesters
 Polyimides
 Polyolefins
 Polyoxyalkylenes
 Polyphosphazenes
 Polysulfides
 Polysulfones
 Polythiophenylenes
 Polyurethanes
 Silicate glasses
 (dental filling material comprising **thermoplastic**
 polymer)

IT Polycarbonates
 (dimethacrylate derivs.; dental filling material comprising
 thermoplastic polymer)

IT Essential oils
 (eucalyptus; dental filling material comprising
 thermoplastic polymer)

IT Dental materials and appliances
 (fillings; dental filling material comprising
 thermoplastic polymer)

IT Polyesters

(lactide; dental filling material comprising thermoplastic polymer)

IT Polyethers
(ortho ester group-contg.; dental filling material comprising thermoplastic polymer)

IT Polyesters
(oxalic acid or succinic acid-contg.; dental filling material comprising thermoplastic polymer)

IT Polyamides
(poly(amino acids); dental filling material comprising thermoplastic polymer)

IT Polyesters
(polyamide-; dental filling material comprising thermoplastic polymer)

IT Polyethers
(polycarbonate-; dental filling material comprising thermoplastic polymer)

IT Polyamides
(polyester-; dental filling material comprising thermoplastic polymer)

IT Polycarbonates
(polyether-; dental filling material comprising thermoplastic polymer)

IT Ketals
(polymer; dental filling material comprising thermoplastic polymer)

IT Acetals
(polymers; dental filling material comprising thermoplastic polymer)

IT Plastics
(thermoplastics; dental filling material comprising thermoplastic polymer)

IT Esters
(vinyl contg.; dental filling material comprising thermoplastic polymer)

IT 67-64-1, Acetone, biological studies 67-66-3, Chloroform, biological studies 71-43-2, Benzene, biological studies 100-42-5, Styrene, biological studies 108-88-3, Toluene, biological studies 109-16-0, Triethylene glycol dimethacrylate 109-99-9, Tetrahydrofuran, biological studies 138-86-3, Limonene 1304-28-5, Barium oxide, biological studies 1304-76-3, Bismuth oxide, biological studies 1306-06-5, Hydroxyapatite 1314-13-2, Zinc oxide, biological studies 1314-23-4, Zirconium oxide, biological studies 1314-37-0, Ytterbium oxide 1314-61-0, Tantalum oxide 1330-20-7, Xylene, biological studies 1344-95-2, Calcium silicate 1398-61-4, Chitin 5892-10-4, Bismuth subcarbonate 7727-43-7, Barium sulfate 7787-59-9, Bismuth

oxychloride 7787-61-3, Bismuth fluoride 9003-09-2,
Poly(methylvinyl) ether 9003-54-7, Acrylonitrile-styrene copolymer
~~9003-56-9~~, Acrylonitrile-butadiene-styrene copolymer
9012-76-4, Chitosan 9033-83-4, Poly(phenylene) 13760-80-0,
Ytterbium fluoride 13813-44-0, Ytterbium iodide 24937-72-2,
Polymaleic anhydride 24980-41-4, Polycaprolactone 25248-42-4,
Polycaprolactone 25322-68-3, Polyethylene oxide 25852-47-5,
Polyethylene glycol dimethacrylate 26009-03-0, Polyglycolide
26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26063-00-3,
Polyhydroxybu-tyrate 26202-08-4, Polyglycolide 26680-10-4,
Polylactide 26744-04-7 31621-87-1, Polydioxanone 58264-26-9,
Hexane diol dimethacrylate 72869-86-4 78644-42-5, Poly(malic
acid) 83120-66-5 189320-54-5

(dental filling material comprising **thermoplastic**
polymer)

OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5
CITINGS)

L56 ANSWER 2 OF 45 HCA COPYRIGHT 2009 ACS on STN

AN 142:341996 HCA Full-text

TI Dental filling material containing a **thermoplastic**

IN Jia, Weitao; Trope, Martin; Alpert, Bruce

PA USA

SO U.S. Pat. Appl. Publ., 21 pp., Cont.-in-part of U.S. Ser. No.
304,371.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	
PI	US 20050069836	A1	20050331	US 2003-465416	200306 18
				<--	
	US 7211136	B2	20070501		
	US 20030113686	A1	20030619	US 2002-279609	200210 24
				<--	
	US 7204874	B2	20070417		
	US 20030124483	A1	20030703	US 2002-304371	200211 26
				<--	
	US 7204875	B2	20070417		

CA 2503185 A1 20040506 CA 2003-2503185 200306
19

<--
WO 2004037214 A1 20040506 WO 2003-US19277 200306
19

<--
W: CA, CN, JP
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU,
IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR
EP 1560555 A1 20050810 EP 2003-739200 200306
19

<--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK
CN 1691929 A 20051102 CN 2003-824381 200306
19

<--
JP 2006507361 T 20060302 JP 2005-501595 200306
19

<--
US 20050066854 A1 20050331 US 2004-914057 200408
06

<--
US 7303817 B2 20071204
US 20070184405 A1 20070809 US 2006-614233 200612
21

<--
US 20080020353 A1 20080124 US 2007-857528 200709
19

<--
PRAI US 2001-336500P P 20011024 <--
US 2002-279609 A2 20021024 <--
US 2002-304371 A2 20021126 <--
US 2003-465416 A 20030618 <--
WO 2003-US19277 W 20030619 <--
US 2004-914057 A2 20040806

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB A dental filling material comprising a **thermoplastic** polymer. The
thermoplastic polymer may be biodegradable. A bioactive substance may

also be included in the filling material. The **thermoplastic** polymer acts as a matrix for the bioactive substance. The compn. may include other polymeric resins, fillers, plasticizers and other additives typically used in dental materials. The filling material is used for the filing of root canals. A compn. contained polycaprolactone, Bioglass, ZnO, and BiOCl.

IT 1306-06-5, Hydroxyapatite 9003-56-9, Abs
 (dental filling material contg. a **thermoplastic**)
 RN 1306-06-5 HCA
 CN Hydroxylapatite (Ca₅(OH)(PO₄)₃) (CA INDEX NAME)

Component	Ratio	Component Registry Number
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

RN 9003-56-9 HCA
 CN 2-Propenenitrile, polymer with 1,3-butadiene and ethenylbenzene (CA INDEX NAME)

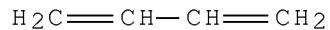
CM 1

CRN 107-13-1
 CMF C3 H3 N



CM 2

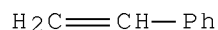
CRN 106-99-0
 CMF C4 H6



CM 3

CRN 100-42-5

CMF C8 H8



IC ICM A61C005-02
INCL 433081000; 433220000; 106035000
CC 63-7 (Pharmaceuticals)
ST dental filling **thermoplastic** filler
IT Borosilicate glasses
(barium borosilicate; dental filling material contg. a **thermoplastic**)
IT Bone
(dental filling material contg. a **thermoplastic**)
IT Polyamides, biological studies
Polyanhydrides
Polycarbonates, biological studies
Polyesters, biological studies
Polyoxyalkylenes, biological studies
Polyoxymethylenes, biological studies
Polyphosphazenes
Polyphosphoric acids
Polythiophenylenes
Polyurethanes, biological studies
(dental filling material contg. a **thermoplastic**)
IT Dental materials and appliances
(fillings; dental filling material contg. a **thermoplastic**
)
IT Natural rubber, biological studies
(gutta-percha; dental filling material contg. a **thermoplastic**)
IT Polyethers, biological studies
(ortho ester group-contg.; dental filling material contg. a **thermoplastic**)
IT Borosilicate glasses
(strontium; dental filling material contg. a **thermoplastic**)
IT Plastics, biological studies
(**thermoplastics**; dental filling material contg. a **thermoplastic**)
IT 1314-13-2, Zinc oxide, biological studies 1314-23-4, Zirconia,
biological studies 1332-29-2, Tin oxide 1344-28-1, Alumina,
biological studies 7631-86-9, Silica, biological studies
7727-43-7, Barium sulfate 7787-59-9, Bismuth oxychloride
12627-14-4, Lithium silicate 12650-28-1, Barium silicate

12712-63-9, Strontium silicate 13463-67-7, Titania, biological studies 29223-92-5 31621-87-1, Polydioxanone 85099-10-1 (dental filling material contg. a **thermoplastic**)

IT 109-16-0, Triethylene glycol dimethacrylate **1306-06-5**, Hydroxyapatite 1398-61-4, Chitin 1565-94-2, Bis-gma 2466-09-3, Diphosphoric acid 7681-49-4, Sodium fluoride, biological studies 7758-87-4, Tricalcium phosphate 9003-09-2, Poly(methyl vinyl ether) 9003-54-7, Acrylonitrile-styrene copolymer **9003-56-9**, Abs 9012-76-4, Chitosan 10103-46-5, Calcium phosphate 24937-72-2, Poly(maleic anhydride) 24980-41-4, Polycaprolactone 25248-42-4, Polycaprolactone 25322-68-3, Peg 25852-47-5, Polyethylene glycol dimethacrylate 26009-03-0, Polyglycolide 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26202-08-4, Polyglycolide 26680-10-4, Polylactide 52352-27-9, Poly(hydroxybutyric acid) 58264-26-9, Hexanediol dimethacrylate 72869-86-4, Udma 78644-42-5, Poly(malic acid) 102190-94-3, Poly(hydroxyvaleric acid) (dental filling material contg. a **thermoplastic**)

OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

RE.CNT 367 THERE ARE 367 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L56 ANSWER 3 OF 45 HCA COPYRIGHT 2009 ACS on STN

AN 142:341992 HCA Full-text

TI Dental filling material comprising an inner core and outer layer of **thermoplastics**

IN Jia, Weitao

PA USA

SO U.S. Pat. Appl. Publ., 25 pp., Cont.-in-part of U.S. Ser. No. 465,416.
CODEN: USXXCO

DT Patent

LA English

FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	
PI	US 20050066854	A1	20050331	US 2004-914057	20040806
				<--	
	US 7303817	B2	20071204		
	US 20030113686	A1	20030619	US 2002-279609	20021024
				<--	

US 7204874	B2	20070417			
US 20030124483	A1	20030703	US 2002-304371		200211 26
			<--		
US 7204875	B2	20070417			
US 20050069836	A1	20050331	US 2003-465416		200306 18
			<--		
US 7211136	B2	20070501			
WO 2006022747	A1	20060302	WO 2004-US28653		200409 02
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
EP 1773234	A1	20070418	EP 2004-783032		200409 02
R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LI, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR				
CN 101014297	A	20070808	CN 2004-80043765		200409 02
BR 2004018972	A	20071204	BR 2004-18972		200409 02
JP 2008509135	T	20080327	JP 2007-524779		200409 02
US 20070184405	A1	20070809	US 2006-614233		200612 21
			<--		
MX 2007001344	A	20080311	MX 2007-1344		200702 01

US 20080020353 A1 20080124 US 2007-857528

200709
19

<--

PRAI US 2001-336500P P 20011024 <--
 US 2002-279609 A2 20021024 <--
 US 2002-304371 A2 20021126 <--
 US 2003-465416 A2 20030618 <--
 US 2004-914057 A 20040806
 WO 2004-US28653 W 20040902

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB A dental filling material comprising an inner core and outer layer of material disposed and surrounding the inner core, both the inner core and outer layer of material each contg. a **thermoplastic** polymer. The **thermoplastic** polymer may be biodegradable. A bioactive substance may also be included in the filling material. The **thermoplastic** polymer acts as a matrix for the bioactive substance. The compn. may include other polymeric resins, fillers, plasticizers and other additives typically used in dental materials. The filling material is used for the filing of root canals.

IT 1306-06-5, Hydroxyapatite
 (dental filling material comprising an inner core and outer layer of **thermoplastics**)

RN 1306-06-5 HCA

CN Hydroxylapatite (Ca5(OH)(PO4)3) (CA INDEX NAME)

Component	Ratio	Component
		Registry Number
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

IT 9003-56-9, Abs
 (dental filling material comprising an inner core and outer layer of **thermoplastics**)

RN 9003-56-9 HCA

CN 2-Propenenitrile, polymer with 1,3-butadiene and ethenylbenzene (CA INDEX NAME)

CM 1

CRN 107-13-1

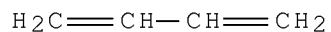
CMF C3 H3 N



CM 2

CRN 106-99-0

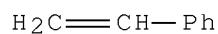
CMF C4 H6



CM 3

CRN 100-42-5

CMF C8 H8



IC ICM C09K003-00

ICS A61C005-08

INCL 106035000; 433220000; 433081000

CC 63-7 (Pharmaceuticals)

ST dental filling **thermoplastic**

IT Prosthetic materials and Prosthetics

(bioactive glass; dental filling material comprising an inner core and outer layer of **thermoplastics**)

IT Polyphosphoric acids

(dental filling material comprising an inner core and outer layer of **thermoplastics**)

IT Polyanhydrides

Polycarbonates, biological studies

Polyesters, biological studies

Polyolefins

Polyoxyalkylenes, biological studies

Polyoxymethylenes, biological studies

Polysulfones, biological studies

Polythiophenylenes

Polyurethanes, biological studies

Silicate glasses

(dental filling material comprising an inner core and outer layer

of thermoplastics)

IT Dental materials and appliances
(fillings; dental filling material comprising an inner core and outer layer of thermoplastics)

IT Natural rubber, biological studies
(gutta-percha; dental filling material comprising an inner core and outer layer of thermoplastics)

IT Plastics, biological studies
(thermoplastics; dental filling material comprising an inner core and outer layer of thermoplastics)

IT 1306-06-5, Hydroxyapatite 1314-13-2, Zinc oxide, biological studies 2466-09-3, Diphosphoric acid 7681-49-4, Sodium fluoride, biological studies 7727-43-7, Barium sulfate 7758-87-4, Tricalcium phosphate 7787-59-9, Bismuth oxychloride 10103-46-5, Calcium phosphate
(dental filling material comprising an inner core and outer layer of thermoplastics)

IT 109-16-0, Triethylene glycol dimethacrylate 1314-23-4, Zirconia, biological studies 1398-61-4, Chitin 1565-94-2, Bis-gma 9003-09-2, Poly(methyl vinyl ether) 9003-54-7, Acrylonitrile-styrene copolymer 9003-56-9, Abs 9012-76-4, Chitosan 24937-72-2, Poly(maleic anhydride) 24980-41-4, Polycaprolactone 25248-42-4, Polycaprolactone 25322-68-3, Peg 25852-47-5, Polyethylene glycol dimethacrylate 26009-03-0, Polyglycolide 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26063-00-3, Poly(hydroxybutyrate) 26202-08-4, Polyglycolide 26680-10-4, Polylactide 26744-04-7 29223-92-5 31621-87-1, Polydioxanone 58264-26-9, Hexanediol dimethacrylate 72869-86-4, Udma 78644-42-5, Polymalic acid 85099-10-1 102190-94-3, Poly(hydroxyvaleric acid)
(dental filling material comprising an inner core and outer layer of thermoplastics)

OSC.G 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)

RE.CNT 375 THERE ARE 375 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L56 ANSWER 4 OF 45 HCA COPYRIGHT 2009 ACS on STN

AN 142:18673 HCA Full-text

TI Composite particles coated with inorganic substances for biologically active materials

IN Kanno, Gen; Susa, Kenzo

PA Trial Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	
PI	JP 2004346309	A	20041209	JP 2004-128314	20040423

<--

PRAI JP 2003-125112 A 20030430 <--

AB Spherical or nearly spherical org. polymer granules are coated with Ca-contg. silica or Ca phosphate. Thus, nylon 12 granules (20-30 μ m) contg. 30% magnetite were immersed in a Ca-contg. silica sol, dried to form a porous layer, and used to adsorb enzymes, DNA, and proteins.

IT 1306-06-5, Hydroxyapatite
(composite particles coated with inorg. substances for biol. active materials)

RN 1306-06-5 HCA

CN Hydroxylapatite (Ca₅(OH)(PO₄)₃) (CA INDEX NAME)

Component	Ratio	Component
		Registry Number
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

IT 9003-07-0, Polypropylene
(composite particles coated with inorg. substances for biol. active materials)

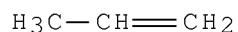
RN 9003-07-0 HCA

CN 1-Propene, homopolymer (CA INDEX NAME)

CM 1

CRN 115-07-1

CMF C3 H6



IC ICM C08J007-06

ICS C08L101-00

CC 5-2 (Agrochemical Bioregulators)

Section cross-reference(s): 37

IT Plastics, biological studies
(thermoplastics; composite particles coated with inorg.
substances for biol. active materials)
IT 1306-06-5, Hydroxyapatite 10103-46-5, Calcium phosphate
(composite particles coated with inorg. substances for biol.
active materials)
IT 9003-07-0, Polypropylene 24937-16-4, Nylon 12 25038-74-8
(composite particles coated with inorg. substances for biol.
active materials)

L56 ANSWER 5 OF 45 HCA COPYRIGHT 2009 ACS on STN

AN 141:328136 HCA Full-text

TI Cell culture substrate, and solidified preparation of cell adhesion
protein or peptide

IN Mochitate, Katsumi

PA National Institute for Environmental Studies, Japan

SO PCT Int. Appl., 91 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	
PI	WO 2004085606	A1	20041007	WO 2004-JP4077	200403 24

<--

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA,
CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,
KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD,
SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE,
DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT,
RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
ML, MR, NE, SN, TD, TG

EP 1616939 A1 20060118 EP 2004-723031

200403
24

<--

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU,

PL, SK
US 20060263878 A1 20061123 US 2005-551052

200509
23

<--

PRAI JP 2003-81147 A 20030324 <--
JP 2003-81148 A 20030324 <--
WO 2004-JP4077 W 20040324

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB It is intended to provide a cell culture substrate coated on its surface with a hydrophobic-binding adsorptive polymer which is efficiently adsorbed to a cell culture substrate such as a culture dish and shows an excellent reproducibility in cell adhesion. Also provided are a solidified prepn. of a cell adhesion protein or peptide which efficiently binds to the cell culture substrate and shows an excellent reproducibility in cell adhesion, and an artificial tissue prepd. by inoculating cells on the solidified prepn. of the cell adhesion peptide, and culturing them.

IT ~~1306-06-5~~, Hydroxyapatite
(cell culture substrate, and solidified prepn. of cell adhesion protein or peptide for artificial tissue)

RN 1306-06-5 HCA

CN Hydroxylapatite (Ca₅(OH)(PO₄)₃) (CA INDEX NAME)

Component	Ratio	Component Registry Number
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

IT ~~9002-86-2~~, Polyvinyl chloride ~~9002-88-4~~,
Polyethylene ~~9003-07-0~~, Polypropylene ~~9003-53-6~~,
Polystyrene
(resin; cell culture substrate, and solidified prepn. of cell adhesion protein or peptide for artificial tissue)

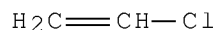
RN 9002-86-2 HCA

CN Ethene, chloro-, homopolymer (CA INDEX NAME)

CM 1

CRN 75-01-4

CMF C2 H3 Cl

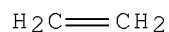


RN 9002-88-4 HCA
CN Ethene, homopolymer (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4

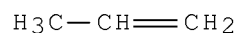


RN 9003-07-0 HCA
CN 1-Propene, homopolymer (CA INDEX NAME)

CM 1

CRN 115-07-1

CMF C3 H6

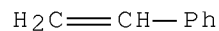


RN 9003-53-6 HCA
CN Benzene, ethenyl-, homopolymer (CA INDEX NAME)

CM 1

CRN 100-42-5

CMF C8 H8



IC ICM C12M003-00
ICS C12M001-22; C12N005-00; A61L027-38; A61L027-40
CC 9-11 (Biochemical Methods)
IT Plastics, biological studies
(thermoplastics; cell culture substrate, and solidified
prepn. of cell adhesion protein or peptide for artificial tissue)

IT 100-42-5D, Styrene, copolymer with maleic anhydride 107-25-5D,
Methylvinylether, copolymer with maleic anhydride 108-31-6D,
Maleic anhydride, copolymer with methylvinylether, copolymer with
ethylvinylether, copolymer with butylether, copolymer with
hexylvinylether, copolymer with styrene 109-92-2D,
Ethylvinylether, copolymer with maleic anhydride 142-96-1D,
Butylether, copolymer with maleic anhydride 157-07-3
~~1306-06-5~~, Hydroxyapatite 1312-43-2, Indium oxide
1398-61-4, Chitin 5363-64-4D, Hexylvinylether, copolymer with
maleic anhydride 7440-06-4, Platinum, biological studies
7440-32-6, Titanium, biological studies 7440-57-5, Gold,
biological studies 7440-74-6, Indium, biological studies
9004-34-6, Cellulose, biological studies 9012-36-6, Agarose
9012-76-4, Chitosan 13463-67-7, Titanium oxide, biological studies
24980-41-4, Polycaprolactone 26100-51-6, Polylactic acid
26247-20-1, Polybutylene succinate 50926-11-9, Indium tin oxide
(cell culture substrate, and solidified prepn. of cell adhesion
protein or peptide for artificial tissue)
IT 57-13-6, Urea, biological studies 108-78-1,
1,3,5-Triazine-2,4,6-triamine, biological studies ~~9002-86-2~~
, Polyvinyl chloride ~~9002-88-4~~, Polyethylene
~~9003-07-0~~, Polypropylene ~~9003-53-6~~, Polystyrene
9016-80-2, Polymethylpentene
(resin; cell culture substrate, and solidified prepn. of cell
adhesion protein or peptide for artificial tissue)
OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1
CITINGS)
RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L56 ANSWER 6 OF 45 HCA COPYRIGHT 2009 ACS on STN

AN 141:230791 HCA Full-text

TI Method for making a prosthetic bearing element

IN Jones, Eric

PA Howmedica International S. De R.L., Ire.

SO Eur. Pat. Appl., 14 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	

PI	EP 1454602	A1	20040908	EP 2004-251261	200403 04

<--

EP 1454602 B1 20061115
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU,
PL, SK

US 20040188011 A1 20040930 US 2004-793116

200403
04

<--

AT 345097 T 20061215 AT 2004-251261

200403
04

<--

PRAI GB 2003-5021 A 20030305 <--

AB A method of making a prosthetic bearing element comprises a backing made from a "rigid" polymeric bearing material which has a min. hardness value of 65 N/mm2 and which supports a bearing liner having a bearing surface and made from a "soft" elastomeric polyurethane material having a hardness value of 3.0-9.0 N/mm2. The opacity of the bearing liner is arranged to allow the passage of a laser beam through it and the opacity of the backing is arranged to prevent the passage of the laser beam which has passed through said bearing liner, bonding the backing to the bearing liner and then treating the bearing liner and backing with the laser beam to cause improved fusion by laser welding.

IT 1306-06-5, Hydroxylapatite 24968-12-5,
Polybutylene terephthalate
(method for making prosthetic bearing element)

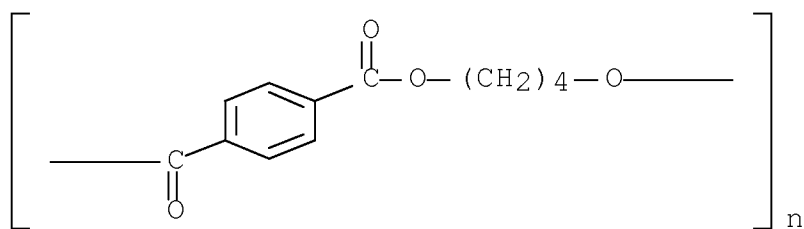
RN 1306-06-5 HCA

CN Hydroxylapatite (Ca5(OH)(PO4)3) (CA INDEX NAME)

Component	Ratio	Component
		Registry Number
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

RN 24968-12-5 HCA

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (CA INDEX NAME)



IC ICM A61F002-30
 ICS A61F002-34; B29C065-16
 CC 63-7 (Pharmaceuticals)
 Section cross-reference(s): 37
 IT Plastics, biological studies
 (thermoplastics; method for making prosthetic bearing
 element)
 IT 1306-06-5, Hydroxylapatite 1314-23-4, Zirconia, biological
 studies 7727-43-7, Barium sulfate 24968-12-5,
 Polybutylene terephthalate 26062-94-2, Polybutylene terephthalate
 659749-56-1, Bionate 75D
 (method for making prosthetic bearing element)
 OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2
 CITINGS)
 RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L56 ANSWER 7 OF 45 HCA COPYRIGHT 2009 ACS on STN
 AN 141:90181 HCA Full-text
 TI **Thermoplastic** resin compositions containing inorganic
 porous particles and their moldings with excellent coloration and
 transparency
 IN Takiyama, Shigeo; Utsu, Shigeatsu
 PA Maruo Calcium Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	

PI	JP 2004189868	A	20040708	JP 2002-359123	200212 11

PRAI JP 2002-359123 20021211 <--

AB The compns. contain the particles satisfying that dx 0.01-30 and $V = 2.5-30$ [dx = av. particle size (μm); V = apparent sp. vol. (mL/g)]. Thus, a compn. contg. Techno ABS (ABS resin) 98.9, Ca phosphate (Ca/P at. ratio 1.67, surface-treated with 10% stearate soap) 0.1, and pigments 1.0% was molded into a test piece showing good color uniformity and no flow marks.

IT 1306-06-5, Hydroxyapatite
(thermoplastic resin compns. contg. porous Ca phosphates and/or silicates with controlled particle size for moldings with good coloration and transparency)

RN 1306-06-5 HCA

CN Hydroxylapatite ($Ca_5(OH)(PO_4)_3$) (CA INDEX NAME)

Component	Ratio	Component Registry Number
=====	=====	=====
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

IT 9003-56-9, ABS resin
(thermoplastic resin compns. contg. porous Ca phosphates and/or silicates with controlled particle size for moldings with good coloration and transparency)

RN 9003-56-9 HCA

CN 2-Propenenitrile, polymer with 1,3-butadiene and ethenylbenzene (CA INDEX NAME)

CM 1

CRN 107-13-1

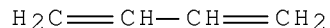
CMF C3 H3 N



CM 2

CRN 106-99-0

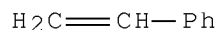
CMF C4 H6



CM 3

CRN 100-42-5

CMF C8 H8



IC ICM C08L101-00
ICS C08J005-00; C08K003-00; C08K003-32; C08K003-34; C08K009-04;
C08L025-04; C08L051-04; C08L069-00

CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 37

ST **thermoplastic** resin molding inorg particle dispersibility;
calcium phosphate particle size ABS transparency; hydroxyapatite
stearate soap coating polycarbonate coloration

IT Surfactants
(Ca phosphate particle coated with; **thermoplastic** resin
compns. contg. porous Ca phosphates and/or silicates with
controlled particle size for moldings with good coloration and
transparency)

IT Porous materials
(particulate; **thermoplastic** resin compns. contg. porous
Ca phosphates and/or silicates with controlled particle size for
moldings with good coloration and transparency)

IT Particles
(porous; **thermoplastic** resin compns. contg. porous Ca
phosphates and/or silicates with controlled particle size for
moldings with good coloration and transparency)

IT Transparent materials
(**thermoplastic** resin compns. contg. porous Ca
phosphates and/or silicates with controlled particle size for
moldings with good coloration and transparency)

IT Polycarbonates, uses
(**thermoplastic** resin compns. contg. porous Ca
phosphates and/or silicates with controlled particle size for
moldings with good coloration and transparency)

IT Molded plastics, uses
(**thermoplastic** resin compns. contg. porous Ca
phosphates and/or silicates with controlled particle size for
moldings with good coloration and transparency)

IT Plastics, uses
 (thermoplastics; thermoplastic resin compns.
 contg. porous Ca phosphates and/or silicates with controlled
 particle size for moldings with good coloration and transparency)

IT 143-07-7, Lauric acid, uses 822-16-2, Sodium stearate
 (Ca phosphate particle coated with; thermoplastic resin
 compns. contg. porous Ca phosphates and/or silicates with
 controlled particle size for moldings with good coloration and
 transparency)

IT 25037-45-0
 (assumed monomers; thermoplastic resin compns. contg.
 porous Ca phosphates and/or silicates with controlled particle
 size for moldings with good coloration and transparency)

IT 471-34-1P, Calcium carbonate, preparation
 (for Ca phosphate prepn.; thermoplastic resin compns.
 contg. porous Ca phosphates and/or silicates with controlled
 particle size for moldings with good coloration and transparency)

IT 1305-62-0, Calcium hydroxide, reactions
 (for Ca phosphate prepn.; thermoplastic resin compns.
 contg. porous Ca phosphates and/or silicates with controlled
 particle size for moldings with good coloration and transparency)

IT 10101-39-0P, Florite 10103-46-5P, Calcium phosphate
 (thermoplastic resin compns. contg. porous Ca
 phosphates and/or silicates with controlled particle size for
 moldings with good coloration and transparency)

IT 1306-06-5, Hydroxyapatite
 (thermoplastic resin compns. contg. porous Ca
 phosphates and/or silicates with controlled particle size for
 moldings with good coloration and transparency)

IT 100-42-5D, Styrene, polymers 9003-56-9, ABS resin
 24936-68-3, Toughlon FN 2200, uses
 (thermoplastic resin compns. contg. porous Ca
 phosphates and/or silicates with controlled particle size for
 moldings with good coloration and transparency)

L56 ANSWER 8 OF 45 HCA COPYRIGHT 2009 ACS on STN

AN 141:12365 HCA Full-text

TI Bone-repairing materials having apatite layer, and their manufacture

IN Yamamoto, Keiichi; Ogura, Yumiko; Kokubo, Tadashi; Nakamura,
 Takashi; Kawashita, Shoichi; Minoda, Masahiko; Miki, Sadao; Beppu,
 Toshiyuki; Miyamoto, Takeaki; Noguchi, Nobuo; Ishikawa, Tomonori

PA Unitika Ltd., Japan; Kansai Technology Licensing Organization Co.,
 Ltd.

SO Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	
PI	JP 2004160157	A	20040610	JP 2003-65038	20030311

<--

PRAI	JP 2002-277326	A	20020924	<--
	JP 2002-277327	A	20020924	<--

AB The materials have three-dimensional structures formed by thermal bonding of staple fibers (and optionally, long fibers) at least partially, and apatite is formed at least on the surfaces. The materials are manufd. by forming webs from staple fibers at least partially comprising thermoplastic polymers, intermingling the fibers, thermally bonding them, supporting Ca²⁺ on the surfaces of the resulting three-dimensional structures, and forming apatite on the surfaces. A web formed from polyester-based hollow staple fibers and polyethylene-based sheath-core staple fibers was compression-molded, treated with carboxymethyl chitin, immersed in an aq. soln. of Ca(OH)₂ to support Ca²⁺ on the surface, and then immersed in simulated body fluid to give a bone-repairing material having an apatite layer on the surface.

IT 9002-88-4, Polyethylene
(fiber, bicomponent, sheath-core; manuf. of bone-repairing materials having apatite layer on three-dimensional fiber structures)

RN 9002-88-4 HCA

CN Ethene, homopolymer (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4

H₂C=CH₂

IT 1306-06-5P, Apatite
(manuf. of bone-repairing materials having apatite layer on three-dimensional fiber structures)

RN 1306-06-5 HCA

CN Hydroxylapatite (Ca₅(OH)(PO₄)₃) (CA INDEX NAME)

Component		Ratio		Component
-----------	--	-------	--	-----------

			Registry Number
HO		1	14280-30-9
O4P		3	14265-44-2
Ca		5	7440-70-2

IC ICM A61L027-00
 CC 63-7 (Pharmaceuticals)
 Section cross-reference(s): 40
 IT ~~9002-88-4~~, Polyethylene
 (fiber, bicomponent, sheath-core; manuf. of bone-repairing materials having apatite layer on three-dimensional fiber structures)
 IT ~~1306-06-5P~~, Apatite
 (manuf. of bone-repairing materials having apatite layer on three-dimensional fiber structures)

L56 ANSWER 9 OF 45 HCA COPYRIGHT 2009 ACS on STN
 AN 140:380697 HCA Full-text
 TI Dental filling material comprising a **thermoplastic** polymer
 IN Jia, Weitao; Trope, Martin; Alpert, Bruce
 PA Pentron Clinical Technologies, LLC, USA
 SO PCT Int. Appl., 47 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	
PI	WO 2004037214	A1	20040506	WO 2003-US19277	20030619

<--

W: CA, CN, JP
 RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU,
 IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR
 US 20030113686 A1 20030619 US 2002-279609
 20021024

<--

US 7204874	B2	20070417	
US 20030124483	A1	20030703	US 2002-304371

20021126

<--

US 7204875	B2	20070417
------------	----	----------

US 20050069836	A1	20050331	US 2003-465416	200306
				18

US 7211136	B2	20070501			
CA 2503185	A1	20040506	CA 2003-2503185		
					200306
					19

```
<--  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,  
PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK  
JP 2006507361 T 20060302 JP 2005-501595  
  
200306  
19
```

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

IT 1306-06-5, Hydroxyapatite
(dental filling material comprising a thermoplastic polymer)

Component	Ratio	Component Registry Number
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

(dental filling material comprising a **thermoplastic**
polymer)

RN 9003-56-9 HCA

CN 2-Propenenitrile, polymer with 1,3-butadiene and ethenylbenzene (CA
INDEX NAME)

CM 1

CRN 107-13-1

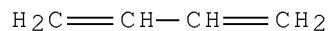
CMF C3 H3 N



CM 2

CRN 106-99-0

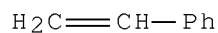
CMF C4 H6



CM 3

CRN 100-42-5

CMF C8 H8



IC ICM A61K006-00

ICS A61K006-083; A61C005-02

CC 63-7 (Pharmaceuticals)

ST dental filling **thermoplastic** polymer

IT Borosilicate glasses

(barium borosilicate; dental filling material comprising a
thermoplastic polymer)

IT Dental materials and appliances

(dental filling material comprising a **thermoplastic**

polymer)

IT Acrylic polymers, biological studies
 Apatite-group minerals
 Borosilicate glasses
 Borosilicates
 Epoxy resins, biological studies
 Polyamides, biological studies
 Polycarbonates, biological studies
 Polyesters, biological studies
 Polyimides, biological studies
 Polyolefins
 Polysulfones, biological studies
 Polyurethanes, biological studies
 Silicate glasses
 (dental filling material comprising a thermoplastic polymer)

IT Natural rubber, biological studies
 (gutta-percha; dental filling material comprising a thermoplastic polymer)

IT Acetals
 (polymers; dental filling material comprising a thermoplastic polymer)

IT Dental materials and appliances
 (root-canal fillers; dental filling material comprising a thermoplastic polymer)

IT Glass, biological studies
 (strontium borosilicate; dental filling material comprising a thermoplastic polymer)

IT Plastics, biological studies
 (thermoplastics; dental filling material comprising a thermoplastic polymer)

IT 1306-06-5, Hydroxyapatite 1314-13-2, Zinc oxide, biological studies 1314-23-4, Zirconia, biological studies 1332-29-2, Tin oxide 1344-28-1, Alumina, biological studies 1344-95-2, Calcium silicate 5892-10-4, Bismuth subcarbonate 7631-86-9, Silica, biological studies 7681-49-4, Sodium fluoride, biological studies 7727-43-7, Barium sulfate 7758-87-4, Tricalcium phosphate 7787-59-9, Bismuth oxychloride 10103-46-5, Calcium phosphate 12627-14-4, Lithium silicate 12650-28-1, Barium silicate 12712-63-9, Strontium silicate 13463-67-7, Titania, biological studies 14808-60-7, Quartz, biological studies 685568-77-8, VT Resin Percha
 (dental filling material comprising a thermoplastic polymer)

IT 109-16-0, Triethylene glycol dimethacrylate 1398-61-4, Chitin 1565-94-2, Bis-gma 9003-09-2, Poly(methyl vinyl ether) 9003-56-9, Abs 9012-76-4, Chitosan 24937-72-2,

Polymaleic anhydride 24980-41-4, Polycaprolactone 25248-42-4,
 Polycaprolactone 25852-47-5, Polyethylene glycol dimethacrylate
 26009-03-0, Polyglycolide 26023-30-3,
 Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26202-08-4, Polyglycolide
 26680-10-4, Polylactide 29223-92-5, 1,4-Dioxan-2-one, homopolymer
 31621-87-1, Polydioxanone 52352-27-9, Poly(hydroxybutyric acid)
 58264-26-9, Hexanediol dimethacrylate 72869-86-4, Udma
 78644-42-5, Poly(malic acid) 102190-94-3, Poly(hydroxyvaleric
 acid) 189320-54-5, 2-Propenoic acid, 2-methyl-, 7,7,9(or
 7,9,9)-trimethyl-4,13-dioxo-3,14-dioxa-5,12-diazahehexadecane-1,16-
 diyl ester, homopolymer
 (dental filling material comprising a **thermoplastic**
 polymer)

OSC.G 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4
 CITINGS)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L56 ANSWER 10 OF 45 HCA COPYRIGHT 2009 ACS on STN

AN 140:28386 HCA Full-text

TI **Thermoplastic** polymer compositions for medical
 applications

IN Krasnov, A. P.; Afonicheva, O. V.; Popova, A. B.; Kazakov, M. E.;
 Rashkovan, I. A.; Volozhin, A. I.; Popov, V. K.; Ul'yanov, S. A.

PA Institut Elementoorganicheskikh Soedinenii im. A. N. Nesmeyanova,
 Russia; OOO NPTs "Uvikom"

SO Russ., No pp. given
 CODEN: RUXXE7

DT Patent

LA Russian

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	
PI	RU 2197509	C1	20030127	RU 2001-115591	200106 08

<--

PRAI RU 2001-115591 20010608 <--

AB A polymer compn. for medical applications comprises a **thermoplastic**
 polymer (85-45), a biocompatible filler (10-35), carbon fibers (5-
 35), and a modifier selected from poly(acrylic acid) (0.002-0.2) and
 polyvinylpyrrolidone (0.04-0.25 parts), the **thermoplastic** polymer
 being polypropylene or a polyamide, and a biocompatible filler being
 hydroxyapatite. The polymer compns. can be used for manufg.
 prosthetic implants, and the materials produced from the compns. are
 characterized by increased mech. strength (700-1,200 MPa), hardness

(up to 120 MPa), and low contact angle (16-40°). Thus, a compn. was produced by extruding polyamide 12 (37.4), hydroxyapatite (10), carbon fibers (UKN) (2.5), poly(acrylic acid) (0.002), and polyvinylpyrrolidone (0.1 g).

IT 1306-06-5, Hydroxyapatite
 (thermoplastic polymer compns. for medical applications)
 RN 1306-06-5 HCA
 CN Hydroxylapatite (Ca5(OH)(PO4)3) (CA INDEX NAME)

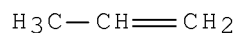
Component	Ratio	Component Registry Number
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

IT 9003-07-0, Polypropylene
 (thermoplastic polymer compns. for medical applications)
 RN 9003-07-0 HCA
 CN 1-Propene, homopolymer (CA INDEX NAME)

CM 1

CRN 115-07-1

CMF C3 H6



IC ICM C08L077-06
 ICS C08L023-12; C08K013-04; A61L027-46; A61L027-48
 CC 37-6 (Plastics Manufacture and Processing)
 Section cross-reference(s): 38, 63
 ST thermoplastic polymer compn medical prosthetic material
 IT Carbon fibers, uses
 (UKN-type; thermoplastic polymer compns. for medical applications)
 IT Fillers
 Prosthetic materials and Prosthetics
 (thermoplastic polymer compns. for medical applications)
 IT Polyamides, properties
 (thermoplastic polymer compns. for medical

applications)
 IT Plastics, uses
 (thermoplastics; thermoplastic polymer
 compns. for medical applications)
 IT 25038-74-8 25587-80-8, Polyamide 11
 (assumed monomers; thermoplastic polymer compns. for
 medical applications)
 IT 1306-06-5, Hydroxyapatite 9003-01-4, Poly(acrylic acid)
 9003-39-8, Polyvinylpyrrolidone
 (thermoplastic polymer compns. for medical
 applications)
 IT 9003-07-0, Polypropylene 24937-16-4, Polyamide 12
 25035-04-5, Poly[imino(1-oxo-1,11-undecanediyl)]
 (thermoplastic polymer compns. for medical
 applications)

L56 ANSWER 11 OF 45 HCA COPYRIGHT 2009 ACS on STN

AN 139:293457 HCA Full-text

TI Laser markable thermoplastic powder coatings and their
 application to metallic substrates

IN Waterkamp, Paul-Ludwig; Christoph, Wolfgang; Schiffer, Thomas;
 Scholten, Heinz

PA Degussa A.-G., Germany

SO Eur. Pat. Appl., 9 pp.
 CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	
PI	EP 1350818	A1	20031008	EP 2003-2958	200302 11
				<--	
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	DE 10217023	A1	20031016	DE 2002-10217023	200204 05
				<--	
	CA 2424423	A1	20031005	CA 2003-2424423	200304 03
				<--	
	JP 2003327849	A	20031119	JP 2003-100490	

200304
03

CN 1450138 A 20031022 CN 2003-110201

200304
04

US 20030191223 A1 20031009 US 2003-407167

200304
07

PRAI DE 2002-10217023 A 20020405 <--

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Powd. coatings contg. laser-activatable compds. are disclosed. The
 laser-sensitive compds. may be 0.01-15% basic copper phosphate or
 MoO₃ or TiO₂ or a combination thereof and the binder polyethylene,
 PVC, polyester, or polyamide. In an example, steel was coated with a
 powd. nylon 12 coating contg. Budit 322, using a fluidized bed
 sintering process.

IT 9002-86-2, PVC 9002-88-4, Polyethylene
 (in laser-markable powder coatings for application to metal)

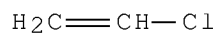
RN 9002-86-2 HCA

CN Ethene, chloro-, homopolymer (CA INDEX NAME)

CM 1

CRN 75-01-4

CMF C2 H3 Cl



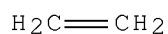
RN 9002-88-4 HCA

CN Ethene, homopolymer (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4



IT 148791-53-1, Copper hydroxide phosphate
(laser-activatable compd.; in laser-markable powder coatings for
application to metal)
RN 148791-53-1 HCA
CN Copper hydroxide phosphate (CA INDEX NAME)

Component	Ratio	Component Registry Number
HO	x	14280-30-9
O4P	x	14265-44-2
Cu	x	7440-50-8

IC ICM C09D005-03
ICS C09D007-12; B41M005-26
CC 42-5 (Coatings, Inks, and Related Products)
IT 9002-86-2, PVC 9002-88-4, Polyethylene
24937-16-4, Nylon 12 25035-04-5, Nylon 11 25038-74-8
25587-80-8
(in laser-markable powder coatings for application to metal)
IT 1313-27-5, Molybdenum trioxide, uses 13463-67-7, RTC 30, uses
148791-53-1, Copper hydroxide phosphate 608521-93-3, Budit
322
(laser-activatable compd.; in laser-markable powder coatings for
application to metal)
OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1
CITINGS)
RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L56 ANSWER 12 OF 45 HCA COPYRIGHT 2009 ACS on STN
AN 139:70005 HCA Full-text
TI Antibacterial polymer compositions having good stability to light,
heat, and salt
IN Uchida, Masashi; Kurihara, Yasuo
PA Shinanen Zeomic K. K., Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003183517	A	20030703	JP 2001-385636	20011219

<--

JP 3918170 B2 20070523
PRAI JP 2001-385636 20011219 <--
AB The compns. comprise (A) metals contg. Ag, Cu, and/or Zn or their ions, (B) silicate salt supports contg. (a) inosilicates, (b) nesosilicates, and/or (c) zeolite-free tectosilicates, and (C) polymers. Thus, a compn. comprising (a) 100 parts G 801 (LDPE, melt flow rate 20), (b) 0.8 part antibacterial agent contg. spodumene-supported Ag, and (c) 0.4 part zinc laurate dispersing agent was injection-molded to give a test piece showing good antibacterial property and discoloration prevention after heat, light, and salt treatment.
IT 9003-56-9, ABS polymer
(ABS 170, ABS 180; antibacterial polymer compns. having good stability to light, heat, and salt)
RN 9003-56-9 HCA
CN 2-Propenenitrile, polymer with 1,3-butadiene and ethenylbenzene (CA INDEX NAME)

CM 1

CRN 107-13-1

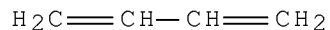
CMF C3 H3 N



CM 2

CRN 106-99-0

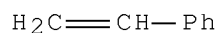
CMF C4 H6



CM 3

CRN 100-42-5

CMF C8 H8



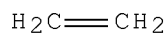
IT 1306-06-5, Hydroxyapatite
 (HA 300BP; antibacterial polymer compns. having good stability to
 light, heat, and salt)
 RN 1306-06-5 HCA
 CN Hydroxylapatite (Ca₅(OH)(PO₄)₃) (CA INDEX NAME)

Component	Ratio	Component Registry Number
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

IT 9002-88-4, Polyethylene
 (LDPE, G 801, G 801; antibacterial polymer compns. having good
 stability to light, heat, and salt)
 RN 9002-88-4 HCA
 CN Ethene, homopolymer (CA INDEX NAME)

CM 1

CRN 74-85-1
 CMF C2 H4



IC ICM C08L101-00
 ICS C08K003-24
 CC 37-6 (Plastics Manufacture and Processing)
 Section cross-reference(s): 5
 IT Plastics, uses
 (thermoplastics; antibacterial polymer compns. having
 good stability to light, heat, and salt)
 IT 9003-56-9, ABS polymer
 (ABS 170, ABS 180; antibacterial polymer compns. having good
 stability to light, heat, and salt)
 IT 1306-06-5, Hydroxyapatite
 (HA 300BP; antibacterial polymer compns. having good stability to
 light, heat, and salt)

IT 9002-88-4, Polyethylene
(LDPE, G 801, G 801; antibacterial polymer compns. having good
stability to light, heat, and salt)

L56 ANSWER 13 OF 45 HCA COPYRIGHT 2009 ACS on STN

AN 139:41890 HCA Full-text

TI Dental root canal filling materials

IN Jia, Weitao; Alpert, Bruce

PA USA

SO U.S. Pat. Appl. Publ., 13 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 5

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
PI US 20030113686	A1	20030619	US 2002-279609	200210 24
			<--	
US 7204874	B2	20070417		
US 20030124483	A1	20030703	US 2002-304371	200211 26
			<--	
US 7204875	B2	20070417		
US 20050069836	A1	20050331	US 2003-465416	200306 18
			<--	
US 7211136	B2	20070501		
CA 2503185	A1	20040506	CA 2003-2503185	200306 19
			<--	
WO 2004037214	A1	20040506	WO 2003-US19277	200306 19
			<--	
W: CA, CN, JP				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU,				
IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
EP 1560555	A1	20050810	EP 2003-739200	200306 19
			<--	

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,				
PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK				
CN 1691929	A	20051102	CN 2003-824381	20030619
<--				
JP 2006507361	T	20060302	JP 2005-501595	20030619
<--				
US 20050066854	A1	20050331	US 2004-914057	20040806
<--				
US 7303817	B2	20071204		
US 20070184405	A1	20070809	US 2006-614233	20061221
<--				
US 20070148616	A1	20070628	US 2007-623390	20070116
<--				
US 20070131139	A1	20070614	US 2007-671079	20070205
<--				
US 20080020353	A1	20080124	US 2007-857528	20070919
<--				
PRAI US 2001-336500P	P	20011024	<--	
US 2002-279609	A2	20021024	<--	
US 2002-304371	A2	20021126	<--	
US 2003-465416	A	20030618	<--	
WO 2003-US19277	W	20030619	<--	
US 2004-914057	A2	20040806		

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB An endodontic filling material comprises a biodegradable **thermoplastic** polymer. A bioactive substance may also be included in the filling material. The **thermoplastic** polymer acts as a matrix for the bioactive substance. The compn. may include other polymeric resins, fillers, plasticizers and other additives typically used in dental materials. The filling material is used for the filling of root canals. A compn. comprising polycaprolactone 40, a bioactive glass having a compn. similar to Bioglass 30, ZnO 20, and BaSO4 10%. The method of forming the compn. involved heating the

polycaprolactone at about 70° to a softened state. The remaining ingredients were then added and mixed under the action of kneading, pressing, or mixing to blend into the polycaprolactone completely to form a homogeneous dough. The compd. was then ready for application to the carrier device.

IT 1306-06-5, Hydroxyapatite 9003-56-9, ABS polymer
 (dental root canal filling materials)
 RN 1306-06-5 HCA
 CN Hydroxylapatite (Ca5(OH)(PO4)3) (CA INDEX NAME)

Component	Ratio	Component Registry Number
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

RN 9003-56-9 HCA
 CN 2-Propenenitrile, polymer with 1,3-butadiene and ethenylbenzene (CA INDEX NAME)

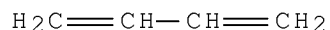
CM 1

CRN 107-13-1
 CMF C3 H3 N



CM 2

CRN 106-99-0
 CMF C4 H6



CM 3

CRN 100-42-5
 CMF C8 H8

H₂C=CH-Ph

IC ICM A61C005-02
INCL 433081000; 433224000; 523115000
CC 63-7 (Pharmaceuticals)
IT Plastics, biological studies
(**thermoplastics**; dental root canal filling materials)
IT 79-10-7D, Acrylic acid, esters, polymers 79-41-4D, MethAcrylic acid, esters, polymers 109-16-0, Triethylene glycol dimethacrylate ~~1306-06-5~~, Hydroxyapatite 1314-13-2, Zinc oxide, biological studies 1314-23-4, Zirconia, biological studies 1332-29-2, Tin oxide 1344-28-1, Alumina, biological studies 1344-95-2, Calcium silicate 1398-61-4, Chitin 1565-94-2 7440-44-0, Carbon, biological studies 7440-69-9D, Bismuth, compds. 7631-86-9, Silica, biological studies 7681-49-4, Sodium fluoride, biological studies 7727-43-7, Barium sulfate 7758-87-4, Tricalcium phosphate 7782-42-5, Graphite, biological studies 7787-59-9, Bismuth oxychloride 9002-84-0 9003-09-2, Poly(methyl vinyl ether) 9003-54-7, Acrylonitrile-styrene copolymer ~~9003-56-9~~, ABS polymer 9004-34-6, Cellulose, biological studies 9012-76-4, Chitosan 10103-46-5, Calcium phosphate 12627-14-4, Lithium silicate 12650-28-1, Barium silicate 12712-63-9, Strontium silicate 13463-67-7, Titania, biological studies 14808-60-7, Quartz, biological studies 24937-72-2, Polymaleic anhydride 24980-41-4 25248-42-4, Poly[oxy(1-oxo-1,6-hexanediyl)] 25322-68-3, Polyethylene oxide 25721-76-0, Polyethylene glycol dimethacrylate 25852-47-5, Polyethylene glycol dimethacrylate 26009-03-0, Polyglycolide 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26063-00-3, Poly(hydroxybutyrate) 26202-08-4, Polyglycolide 26680-10-4, Polylactide 26744-04-7 28654-11-7, Bisphenol A-glycidyl methacrylate copolymer 29223-92-5 31621-87-1, Polydioxanone 36465-90-4, Diphosphonic acid 50647-33-1, Barium boron silicate (BaB₂(SiO₄)₂) 58264-26-9, Hexane diol dimethacrylate 58875-13-1 72869-86-4, Urethane dimethacrylate 78644-42-5, Poly(malic acid) 78666-19-0, Poly(malic acid), SRU 83120-66-5, Poly(3-hydroxyvaleric acid) 85099-10-1
(dental root canal filling materials)
OSC.G 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

L56 ANSWER 14 OF 45 HCA COPYRIGHT 2009 ACS on STN
AN 138:326636 HCA Full-text

TI Biodegradable material components
 IN Bratt, John Stephen; Cooper, John Joseph; Waters, Russell David
 PA Biocomposites Limited, UK
 SO PCT Int. Appl., 19 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	
PI	WO 2003033042	A1	20030424	WO 2002-GB4679	200210 15
				<--	
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU	2002334172	A1	20030428	AU 2002-334172	200210 15
				<--	
EP	1436019	A1	20040714	EP 2002-801415	200210 15
				<--	
EP	1436019	B1	20090304		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
JP	2005508219	T	20050331	JP 2003-535843	200210 15
				<--	
CN	1604797	A	20050406	CN 2002-825134	200210 15
				<--	
CN	100506296	C	20090701		
AT	424225	T	20090315	AT 2002-801415	

200210
15

ES 2320111 T3 20090519 ES 2002-801415

200210
15

US 20040247644 A1 20041209 US 2004-492580

200404
14

PRAI GB 2001-24742 A 20011016 <--
WO 2002-GB4679 W 20021015 <--

AB A biodegradable material for use in making items usable in surgery and related fields of medicine is disclosed. The material comprises a bioabsorbable **thermoplastic** polymer component and a bioactive filler material. In components made of the material particles of the filler material occur embedded within the surface of the components. Poly(L-lactide) (PLLA) of mol. wt. 200,000 Daltons and mean granule size of 4 mm was cryogenically milled to give polymer flakes. A lightly sintered polycryst. hydroxyapatite (HA) powder having a particle size of about 100-250 μ was dry blended with the PLLA flakes in the proportions PLLA-HA 3:1 by wt. and the mixt. was heated to 145° for 0.5 h. The hot mixt. was stirred together and fed to an injection molding machine. Molded components were produced which had HA particles embedded within their surface.

IT ~~1306-06-5~~, Hydroxylapatite ~~24968-12-5~~,
Polybutylene terephthalate
(biodegradable material components)

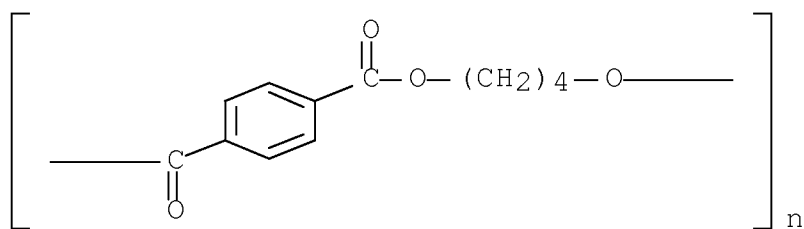
RN 1306-06-5 HCA

CN Hydroxylapatite (Ca₅(OH)(PO₄)₃) (CA INDEX NAME)

Component	Ratio	Component
		Registry Number
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

RN 24968-12-5 HCA

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (CA INDEX NAME)



IC ICM A61L031-12
ICS A61L027-44
CC 63-7 (Pharmaceuticals)
IT 471-34-1, Calcium carbonate, biological studies ~~1306-06-5~~,
Hydroxylapatite 7758-87-4, Tricalcium phosphate 7778-18-9,
Calcium sulfate 10103-46-5, Calcium phosphate ~~24968-12-5~~
, Polybutylene terephthalate 24980-41-4, Polycaprolactone
25248-42-4, Polycaprolactone 25322-68-3, Polyethylene glycol
26009-03-0, Polyglycolic acid 26023-30-3,
Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26062-94-2, Polybutylene
terephthalate 26100-51-6, Polylactic acid 26124-68-5,
Polyglycolic acid 26161-42-2 26811-96-1, Poly(L-lactic acid)
26917-25-9 29223-92-5 31621-87-1, Polydioxanone 33135-50-1,
Poly(L-lactide) 52352-27-9, Poly(hydroxybutyric acid)
102190-94-3, Poly(hydroxyvaleric acid) 106989-11-1, D-Lactic acid
homopolymer
(biodegradable material components)
OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1
CITINGS)
RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L56 ANSWER 15 OF 45 HCA COPYRIGHT 2009 ACS on STN
AN 138:243374 HCA Full-text
TI Ceramic precursors with good mechanical strength and manufacture of
sintered porous biocompatible calcium phosphate ceramics using them
IN Matsumoto, Tomoo
PA Pentax Corporation, Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	

PI JP 2003089586 A 20030328 JP 2001-277026

200109
12

<--

JP 4231217 B2 20090225
PRAI JP 2001-277026 20010912 <--

AB The precursors for porous Ca phosphate ceramics (porosity 75-95%) contain **thermoplastic** resins. Slurries contg. Ca phosphate ceramic powders, water-sol. polymers, nonionic surfactants, and **thermoplastic** resins are foamed by vigorously stirring, gelled, dried, heated at 200-300° to cause fusion of the **thermoplastic** resins, and then sintered to give the porous Ca phosphate ceramics (porosity 75-95%), useful as carriers for culture of cells or biol. tissues, prosthetic materials, etc. A slurry contg. spherical hydroxyapatite powder 120, an aq. soln. contg. 1 wt.% Me cellulose 320, Aromox (N,N-dimethyldodecylamine oxide) 10, and poly(Me methacrylate) 3 wt. parts was foamed, gelled by heating, dried, heated at 200° for 1 h, shaped, and sintered to give porous hydroxyapatite ceramics having porosity 85%.

IT 1306-06-5, Hydroxyapatite
(ceramic precursors with good mech. strength contg.
thermoplastic resins for sintered porous biocompatible
calcium phosphate ceramics)

RN 1306-06-5 HCA

CN Hydroxylapatite (Ca₅(OH)(PO₄)₃) (CA INDEX NAME)

Component	Ratio	Component
		Registry Number
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

IT 9011-14-7, Poly(methyl methacrylate)
(ceramic precursors with good mech. strength contg.
thermoplastic resins for sintered porous biocompatible
calcium phosphate ceramics)

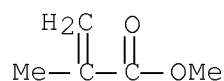
RN 9011-14-7 HCA

CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (CA INDEX NAME)

CM 1

CRN 80-62-6

CMF C5 H8 O2



- IC ICM C04B038-10
- ICS A61L027-00; C04B035-447
- CC 63-7 (Pharmaceuticals)
- Section cross-reference(s): 9, 38, 57
- ST porous ceramic calcium phosphate **thermoplastic** sintering;
hydroxyapatite polymethyl methacrylate porous ceramic precursor;
prosthetic sintered porous ceramic hydroxyapatite; tissue culture
carrier porous calcium phosphate
- IT Animal tissue culture
(carriers for; ceramic precursors with good mech. strength contg.
thermoplastic resins for sintered porous biocompatible
calcium phosphate ceramics)
- IT Sintering
(ceramic precursors with good mech. strength contg.
thermoplastic resins for sintered porous biocompatible
calcium phosphate ceramics)
- IT Prosthetic materials and Prosthetics
(ceramics; ceramic precursors with good mech. strength contg.
thermoplastic resins for sintered porous biocompatible
calcium phosphate ceramics)
- IT Carriers
(for cell or tissue culture; ceramic precursors with good mech.
strength contg. **thermoplastic** resins for sintered
porous biocompatible calcium phosphate ceramics)
- IT Surfactants
(nonionic; ceramic precursors with good mech. strength contg.
thermoplastic resins for sintered porous biocompatible
calcium phosphate ceramics)
- IT Ceramics
(porous; ceramic precursors with good mech. strength contg.
thermoplastic resins for sintered porous biocompatible
calcium phosphate ceramics)
- IT Plastics, uses
(**thermoplastics**; ceramic precursors with good mech.
strength contg. **thermoplastic** resins for sintered
porous biocompatible calcium phosphate ceramics)
- IT Gelation agents
(water-sol. polymers; ceramic precursors with good mech. strength
contg. **thermoplastic** resins for sintered porous
biocompatible calcium phosphate ceramics)

US 6706387 B2 20040316
 US 20030044628 A1 20030306 US 2002-79770

200202
 21

<--

US 6709740 B2 20040323
 PRAI US 2001-931473 A 20010816 <--
 US 2002-79770 A 20020221 <--

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Ultra low haze, coextruded, ~~thermoplastic~~ polymer film was prepd. by coextrusion of a blend of polyethylene terephthalate with org. and inorg. fillers in ≥ 1 skin layer on a virtually particle-free polyethylene terephthalate core layer; the inorg. fillers are Al oxide particles and/or Si oxide of av. particle size .apprx.0.035-0.3 μm , and particles of the org. filler have a particle size .ltorsim.0.8 μm (present in an amt. .ltorsim.0.04%), the skin layer being .ltorsim.3 μm in thickness.

IT ~~1306-06-5~~, Hydroxyapatite
 (filler; low friction and ultra low haze coextruded polyester film for optical applications)

RN 1306-06-5 HCA

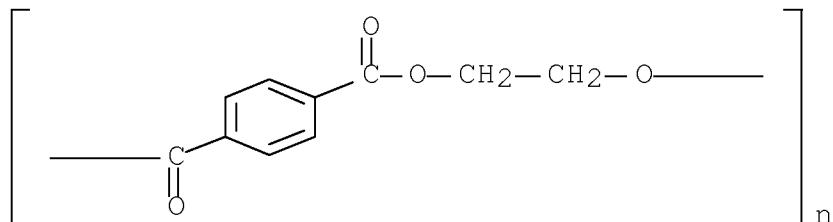
CN Hydroxylapatite (Ca₅(OH)(PO₄)₃) (CA INDEX NAME)

Component	Ratio	Component Registry Number
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

IT ~~25038-59-9~~, Polyethylene terephthalate, uses
 (skin layer contg. filler; low friction and ultra low haze coextruded polyester film for optical applications)

RN 25038-59-9 HCA

CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (CA INDEX NAME)



IC ICM B32B027-36
 ICS B32B027-18
 CC 38-3 (Plastics Fabrication and Uses)
 IT 471-34-1, Calcium carbonate, uses ~~1306-06-5~~,
 Hydroxyapatite 1314-23-4, Zirconium oxide, uses 1332-29-2, Tin
 oxide 1335-30-4, Aluminum silicate 7727-43-7, Barium sulfate
 10103-46-5, Calcium phosphate 13463-67-7, Titanium dioxide, uses
 (filler; low friction and ultra low haze coextruded polyester
 film for optical applications)
 IT ~~25038-59-9~~, Polyethylene terephthalate, uses
 (skin layer contg. filler; low friction and ultra low haze
 coextruded polyester film for optical applications)
 RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L56 ANSWER 17 OF 45 HCA COPYRIGHT 2009 ACS on STN
 AN 138:349 HCA Full-text
 TI Compositions, implants, methods, and kits for closure of lumen
 openings, repair of ruptured tissue, and for bulking of tissue
 IN Wironen, John F.; Donda, Russell S.
 PA USA
 SO U.S. Pat. Appl. Publ., 22 pp., Cont.-in-part of U. S. Ser. No.
 865,318.
 CODEN: USXXCO

DT Patent
 LA English

FAN.CNT 4

	PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
PI	US 20020176893	A1	20021128	US 2001-16602	200110 22
				<--	
	US 20020107429	A1	20020808	US 2001-776404	200102 02
				<--	
	US 6685626	B2	20040203		
	US 20020106411	A1	20020808	US 2001-865318	200105 25
				<--	
	WO 2002062404	A2	20020815	WO 2002-US3107	200201 31

WO 2002062404 A3 20030626

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE,
GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO,
NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
TZ, UA, UG, UZ, VN, YU, ZA, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI,
FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG,
CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2002240228 A1 20020819 AU 2002-240228

200201
31

PRAI US 2001-776404 A2 20010202 <--
US 2001-865318 A2 20010525 <--
US 2001-16602 A 20011022 <--
WO 2002-US3107 W 20020131 <--

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Disclosed and claimed are compns., devices, methods and kits that are
useful in occluding lumens or bulking-up regions of tissues or organs
in a living mammal. The invention pertains to compns., contg.
specific bioactive components in combination with carriers, and
tissue based implants, wherein the bioactive components promote
responsive body processes that contribute to the formation of the
occlusion or bulked-up region or repair of damaged tissue. Also
disclosed is an expandable collagen sponge for implantation into
lumens, voids, and cavities.

IT 9011-14-7, Arteplast

(Artecoll, carrier; compns., implants, methods, and kits for
closure of lumen openings, repair of ruptured tissue, and for
bulking of tissue)

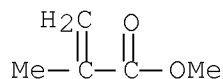
RN 9011-14-7 HCA

CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (CA INDEX
NAME)

CM 1

CRN 80-62-6

CMF C5 H8 O2



IT 1306-06-5, Hydroxyapatite
 (fine particles of; compns., implants, methods, and kits for
 closure of lumen openings, repair of ruptured tissue, and for
 bulking of tissue)
 RN 1306-06-5 HCA
 CN Hydroxylapatite (Ca₅(OH)(PO₄)₃) (CA INDEX NAME)

Component	Ratio	Component Registry Number
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

IC ICM A61K009-14
 INCL 424489000
 CC 1-12 (Pharmacology)
 Section cross-reference(s): 63
 IT Body temperature
 (thermoplastic gelatin not flowable at; compns.,
 implants, methods, and kits for closure of lumen openings, repair
 of ruptured tissue, and for bulking of tissue)
 IT Gelatins, biological studies
 (thermoplastic, carrier; compns., implants, methods,
 and kits for closure of lumen openings, repair of ruptured
 tissue, and for bulking of tissue)
 IT 9011-14-7, Arteplast
 (Artecoll, carrier; compns., implants, methods, and kits for
 closure of lumen openings, repair of ruptured tissue, and for
 bulking of tissue)
 IT 1306-06-5, Hydroxyapatite
 (fine particles of; compns., implants, methods, and kits for
 closure of lumen openings, repair of ruptured tissue, and for
 bulking of tissue)
 OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1
 CITINGS)

L56 ANSWER 18 OF 45 HCA COPYRIGHT 2009 ACS on STN
 AN 137:234439 HCA Full-text
 TI Purification materials and method of filtering using the same
 IN Hughes, Kenneth D.
 PA Watervisions International, Inc., USA
 SO PCT Int. Appl., 47 pp.
 CODEN: PIXXD2

DT Patent
LA English
FAN.CNT 1

	PATENT NO. ----- -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
PI	WO 2002070104	A1	20020912	WO 2002-US4786	200202 18

<--

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD,
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ,
LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,
NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE,
CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT,
SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
SN, TD, TG

AU	2002257002	A1	20020919	AU 2002-257002	200202 18
----	------------	----	----------	----------------	--------------

<--

EP	1379319	A1	20040114	EP 2002-726579	200202 18
----	---------	----	----------	----------------	--------------

<--

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

US	20050098495	A1	20050512	US 2004-469653	200402 19
----	-------------	----	----------	----------------	--------------

<--

PRAI US 2001-272950P P 20010302 <--
WO 2002-US4786 W 20020218 <--

AB The invention relates to a purifn. material comprising filtration
particulate matter aggregated with a first binder and further
processed with a second binder to generate a porous fluid filtration
material or a non-porous coating, a filtering device comprising a
housing and the purifn. material, and a method of filtering and/or
purifying a fluid including water or other solns. contg. chem. and
microbiol. contaminants, such as fluids contg. heavy metals,
pesticides, by products of oxidn. chems. and including cysts,
bacteria and/or viruses, where the fluid is passed through to contact
a surface of the purifn. material.

IT 9002-86-2, Polyvinyl chloride 9002-88-4,

Polyethylene 9003-07-0, Polypropylene 9003-53-6,
Polystyrene 53801-70-0, Calcium hydroxide phosphate
(purifn. materials comprising particulates and binder with a
second binder to generate a porous fluid filtration material)

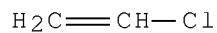
RN 9002-86-2 HCA

CN Ethene, chloro-, homopolymer (CA INDEX NAME)

CM 1

CRN 75-01-4

CMF C2 H3 Cl



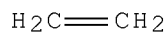
RN 9002-88-4 HCA

CN Ethene, homopolymer (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4



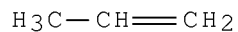
RN 9003-07-0 HCA

CN 1-Propene, homopolymer (CA INDEX NAME)

CM 1

CRN 115-07-1

CMF C3 H6



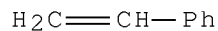
RN 9003-53-6 HCA

CN Benzene, ethenyl-, homopolymer (CA INDEX NAME)

CM 1

CRN 100-42-5

CMF C8 H8



RN 53801-70-0 HCA

CN Calcium hydroxide phosphate (CA INDEX NAME)

Component	Ratio	Component
		Registry Number
HO	x	14280-30-9
O4P	x	14265-44-2
Ca	x	7440-70-2

IC ICM B01D039-00

CC 47-2 (Apparatus and Plant Equipment)

Section cross-reference(s): 9, 59, 60, 61

IT Plastics, uses

(**thermoplastics**; purifn. materials comprising particulates and binder with a second binder to generate a porous fluid filtration material)

IT 79-41-4D, Methacrylic acid, polymers 100-42-5, Styrene, uses
1305-62-0, Calcium hydroxide, uses 1305-78-8, Calcium oxide, uses
1309-42-8, Magnesium hydroxide 1309-48-4, Magnesium oxide, uses
1327-41-9, Polyaluminum chloride 1332-37-2, Iron oxide, uses
1335-30-4, Aluminum silicate 1343-88-0, Magnesium silicate
1344-28-1, Aluminum oxide, uses 1344-95-2, Calcium silicate
1398-61-4, Chitin 3085-30-1, Aluminum butoxide 4325-85-3,
Tris(trimethyl)siloxyboron 7429-90-5, Aluminum, uses 7439-95-4,
Magnesium, uses 7440-70-2, Calcium, uses 9000-07-1, Carrageenan
9000-69-5, Pectins ~~9002-86-2~~, Polyvinyl chloride
~~9002-88-4~~, Polyethylene 9002-89-5 9002-98-6 9003-01-4,
Polyacrylic acid 9003-05-8 ~~9003-07-0~~, Polypropylene
9003-20-7, Polyvinylacetate 9003-47-8, Polyvinylpyridine
~~9003-53-6~~, Polystyrene 9004-32-4, Carboxymethyl cellulose
9004-34-6, Cellulose, uses 9004-34-6D, Cellulose, polymers
9005-32-7, Alginic acid 10043-83-1, Magnesium phosphate
10103-46-5, Calcium phosphate 10497-05-9, Tris(trimethyl)silyl
phosphate 11113-66-9, Iron hydroxide 11138-66-2, Xanthan
12173-10-3, Clinoptilolite 13597-73-4D, Disiloxane, derivs
14782-75-3 21645-51-2, Aluminum hydroxide, uses 22464-99-9,
Zirconium 2-ethylhexanoate 25014-41-9, Polyacrylonitrile

25322-68-3 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)]
26062-79-3 26100-51-6, Polylactic acid 30581-59-0D,
Vinylpyrrolidone dimethylaminoethylmethacrylate copolymer,
quaternized ~~53801-70-0~~, Calcium hydroxide phosphate
53867-17-7 55892-56-3, Polyaluminum sulfate 67893-01-0
95144-24-4 457074-95-2

(purifn. materials comprising particulates and binder with a
second binder to generate a porous fluid filtration material)

OSC.G 9 THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD (9
CITINGS)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L56 ANSWER 19 OF 45 HCA COPYRIGHT 2009 ACS on STN

AN 136:248412 HCA Full-text

TI Preparation of orthopedic mixture containing calcium in polymer
matrix by supercritical fluid processing techniques

IN Mandel, Frederick S.; Wang, J. Don; Howdle, Steven M.; Popov,
Vladimir K.

PA Ferro Corporation, USA

SO PCT Int. Appl., 31 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	
PI	WO 2002021222	A1	20020314	WO 2001-US26448	200108 24

<--

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,
LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ,
PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ,
UA, UG, UZ, VN, YU, ZA, ZW

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC,
NL, PT, SE, TR

US	6579532	B1	20030617	US 2000-658252	200009 08
----	---------	----	----------	----------------	--------------

<--

AU	2001086712	A	20020322	AU 2001-86712	200108 24
----	------------	---	----------	---------------	--------------

<--

PRAI US 2000-658252 A 20000908 <--
WO 2001-US26448 W 20010824 <--

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

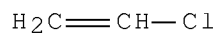
AB The orthopedic mixts., useful for bone replacement implants or bone fillers, are prepd. by mixing starting materials contg. a source of calcium ions and a polymer matrix for the calcium ions, with a process medium such as carbon dioxide (supercrit. state) in a reactor to form a supercrit. fluid slurry; and sepg. and removing the process medium. The resultant product is a strong, porous structure that simulates autogenic bone. Thus, 360 g tribasic calcium phosphate and 90 g PMMA (PD 7610) were charged into a reactor filled with 5.0 lb liq. CO₂ at 38° and 1500 psi for 1 h and then at 75° and 2900 psi for 10 min, and sepd. by releasing CO₂ to give a finely divided product contg. 80% calcium phosphate.

IT 9002-86-2, Polyvinyl chloride 9002-88-4,
Polyethylene 9003-07-0, Polypropylene
(prepn. of orthopedic mixt. contg. calcium in polymer matrix by supercrit. fluid processing technique for bone-replacement implant or bone filler)

RN 9002-86-2 HCA
CN Ethene, chloro-, homopolymer (CA INDEX NAME)

CM 1

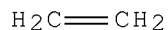
CRN 75-01-4
CMF C2 H3 Cl



RN 9002-88-4 HCA
CN Ethene, homopolymer (CA INDEX NAME)

CM 1

CRN 74-85-1
CMF C2 H4



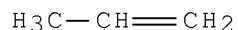
RN 9003-07-0 HCA

CN 1-Propene, homopolymer (CA INDEX NAME)

CM 1

CRN 115-07-1

CMF C3 H6



IT 1306-06-5, Hydroxyapatite

(prepn. of orthopedic mixt. contg. calcium in polymer matrix by supercrit. fluid processing technique for bone-replacement implant or bone filler)

RN 1306-06-5 HCA

CN Hydroxylapatite (Ca₅(OH)(PO₄)₃) (CA INDEX NAME)

Component	Ratio	Component Registry Number
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

IC ICM G05B013-00

ICS C08F002-48; A61F002-28; A61F002-02; A61J002-32

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 63

IT Plastics, uses

(**thermoplastics**; prepn. of orthopedic mixt. contg. calcium in polymer matrix by supercrit. fluid processing technique for bone-replacement implant or bone filler)

IT 79-10-7D, Acrylic acid, esters, polymers 9002-86-2,
Polyvinyl chloride 9002-88-4, Polyethylene 9002-89-5,
Polyvinyl alcohol 9003-01-4, Poly(acrylic acid) 9003-05-8,
Polyacrylamide 9003-07-0, Polypropylene 9003-97-8,
Polycarbophil 9016-00-6, Polydimethylsiloxane 24937-78-8,
Polyethylenevinyl acetate 24980-41-4, Poly(ε-caprolactone)
25189-55-3, Poly-N-isopropylacrylamide 25248-42-4,
Poly[oxy(1-oxo-1,6-hexanediyl)] 25322-68-3, Polyethylene glycol
26009-03-0, Poly(glycolic acid) 26023-30-3,
Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26063-00-3,
Poly(3-hydroxybutyrate) 26100-51-6, Polylactic acid 26124-68-5,
Poly(glycolic acid) 26780-50-7, Glycolide-lactide copolymer
37353-59-6, Hydroxymethyl cellulose 55567-80-1, PD 7610

(prepn. of orthopedic mixt. contg. calcium in polymer matrix by supercrit. fluid processing technique for bone-replacement implant or bone filler)

IT 1306-06-5, Hydroxyapatite

(prepn. of orthopedic mixt. contg. calcium in polymer matrix by supercrit. fluid processing technique for bone-replacement implant or bone filler)

OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L56 ANSWER 20 OF 45 HCA COPYRIGHT 2009 ACS on STN

AN 136:236894 HCA Full-text

TI Manufacture of orthopedic implants based on calcium in polymer matrix using supercritical fluid processing

IN Mandel, Frederick S.; Wang, J. Don

PA Ferro Corporation, USA

SO PCT Int. Appl., 27 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
------------	------	------	-----------------	------

-----	----	-----	-----	
-------	------	-------	-------	--

-------	--	--	--	--

PI	WO 2002019947	A1	20020314	WO 2001-US26304
----	---------------	----	----------	-----------------

200108
23

<--

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR

US 6506213	B1	20030114	US 2000-658250
------------	----	----------	----------------

200009
08

<--

AU 2001086653	A	20020322	AU 2001-86653
---------------	---	----------	---------------

200108
23

<--

PRAI US 2000-658250	A	20000908	<--
---------------------	---	----------	-----

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Orthopedic parts are manufd. using supercrit. fluid processing techniques in which starting materials and a process medium are mixed in a reactor to form a supercrit. fluid slurry. The starting materials include a source of calcium ions and a polymer matrix for the calcium ions. The process medium preferably is carbon dioxide which is supplied to the reactor in a supercrit. state or which is heated and pressurized in the reactor to attain a supercrit. state. A conduit connects the reactor to a mold that has a cavity of a desired shape for an orthopedic part. A flush valve interconnects the bottom of a reactor and the conduit. When the flush valve is opened, the slurry is directed through the conduit into the mold where solidification occurs very rapidly. The resultant product is a strong, porous structure that simulates autogenic bone. For example, 280 g of a 50:50 mixt. of calcium sulfate and poly(ϵ -caprolactone) was charged into a one-gal reactor. Reactor was filled with 2.49 k of liq. CO₂ and heated to 38° at a pressure of .apprx.116 bar rendering the CO₂ supercrit. fluid. After completion of mixing, the starting materials were formed into a supercrit. fluid slurry. The valve was opened and the slurry was directed through a conduit into a mold, the mold was filled instantly producing a solid rod with a very dense surface and a somewhat porous core.

IT 1306-06-5, Hydroxyapatite 12167-74-7, Calcium hydroxide phosphate (Ca₅(OH)(PO₄)₃)
(manuf. of orthopedic implants based on calcium in polymer matrix using supercrit. fluid processing)

RN 1306-06-5 HCA

CN Hydroxylapatite (Ca₅(OH)(PO₄)₃) (CA INDEX NAME)

Component	Ratio	Component
		Registry Number
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

RN 12167-74-7 HCA

CN Calcium hydroxide phosphate (Ca₅(OH)(PO₄)₃) (CA INDEX NAME)

Component	Ratio	Component
		Registry Number
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

IT 9002-86-2, Polyvinyl chloride 9002-88-4,
Polyethylene 9003-07-0, Polypropylene
(matrix for calcium ions; manuf. of orthopedic implants based on
calcium in polymer matrix using supercrit. fluid processing)

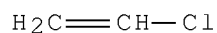
RN 9002-86-2 HCA

CN Ethene, chloro-, homopolymer (CA INDEX NAME)

CM 1

CRN 75-01-4

CMF C2 H3 Cl



RN 9002-88-4 HCA

CN Ethene, homopolymer (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4



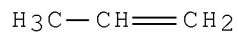
RN 9003-07-0 HCA

CN 1-Propene, homopolymer (CA INDEX NAME)

CM 1

CRN 115-07-1

CMF C3 H6



IC ICM A61F002-02

ICS B29C044-02

CC 63-7 (Pharmaceuticals)

Section cross-reference(s): 37, 78

IT Plastics, biological studies
 (thermoplastics, matrix for calcium ions; manuf. of
 orthopedic implants based on calcium in polymer matrix using
 supercrit. fluid processing)

IT 62-54-4D, Calcium acetate, complexes 1306-06-5,
 Hydroxyapatite 7440-70-2, Calcium, biological studies 7778-18-9,
 Calcium sulfate 7785-82-2, EDTA calcium salt 10103-46-5, Dynafos
 12167-74-7, Calcium hydroxide phosphate (Ca5(OH)(PO4)3)
 13397-24-5, Gypsum, biological studies 26499-65-0, Gypsum
 hemihydrate
 (manuf. of orthopedic implants based on calcium in polymer matrix
 using supercrit. fluid processing)

IT 79-10-7D, Acrylic acid, esters, polymers 9002-86-2,
 Polyvinyl chloride 9002-88-4, Polyethylene 9002-89-5,
 Polyvinyl alcohol 9003-01-4, Polyacrylic acid 9003-05-8,
 Polyacrylamide 9003-07-0, Polypropylene 9003-97-8,
 Polycarbophil 9016-00-6, Polydimethylsiloxane 24937-78-8,
 Ethylene-vinyl acetate copolymer 24980-41-4,
 Poly(ε-caprolactone) 25189-55-3, Poly(N-isopropyl
 acrylamide) 25248-42-4, Poly[oxy(1-oxo-1,6-hexanediyl)]
 25322-68-3, Polyethylene glycol 26009-03-0, Poly(glycolic acid)
 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26063-00-3,
 Poly(3-hydroxybutyric acid) 26100-51-6, Poly(lactic acid)
 26124-68-5, Poly(glycolic acid) 26744-04-7 26780-50-7,
 Glycolide-lactide copolymer 31900-57-9, Polydimethylsiloxane
 37353-59-6, Hydroxymethyl cellulose
 (matrix for calcium ions; manuf. of orthopedic implants based on
 calcium in polymer matrix using supercrit. fluid processing)

OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2
 CITINGS)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L56 ANSWER 21 OF 45 HCA COPYRIGHT 2009 ACS on STN

AN 136:205474 HCA Full-text

TI Coating compositions for delivering a medicament from the surface of
 a medical device

IN Chudzik, Stephen J.; Everson, Terrence P.; Amos, Richard A.

PA Surmodics, Inc., USA

SO PCT Int. Appl., 46 pp.
 CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	

PI	WO 2002013871	A2	20020221	WO 2001-US41309	200107 09
				<--	
	WO 2002013871	A3	20020530		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	CA 2419379	A1	20020221	CA 2001-2419379	200107 09
				<--	
	AU 2001081304	A	20020225	AU 2001-81304	200107 09
				<--	
	US 20020041899	A1	20020411	US 2001-901425	200107 09
				<--	
	US 7056533	B2	20060606		
	EP 1309360	A2	20030514	EP 2001-959785	200107 09
				<--	
	EP 1309360	B1	20060419		
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
	JP 2004520088	T	20040708	JP 2002-519009	200107 09
				<--	
	AT 323517	T	20060515	AT 2001-959785	200107 09
				<--	
	AU 2001281304	B2	20060525	AU 2001-281304	200107 09
				<--	

200302
14

200603
23

<--

AB A coating compn., in both its uncrosslinked and crosslinked forms, for use in delivering a medicament from the surface of a medical device positioned in vivo is disclosed. Once crosslinked, the coating compn. provides a gel matrix adapted to contain the medicament in a form that permits the medicament to be released from the matrix in a prolonged, controlled, predictable and effective manner in vivo. A compn. includes a polyether monomer, such as an alkoxy poly(alkylene glycol), a carboxylic acid-contg. monomer, such as (meth)acrylic acid, a photoderivatized monomer, and a hydrophilic monomer such as acrylamide. Acrylamide-methacrylic acid-methoxy polyethylene glycol monomethacrylate-N-[3-(4-benzoylbenzamido)propyl]methacrylamide copolymer was prepd. (I). Stainless steel rods (2 cm) were dipped in a soln. of 50 mg/mL I in isopropanol, air dried, subjected to UV light. The coated rods were incubated in a soln. of 100 mg/mL chlorhexidine diacetate for 30 min. at room temp. Release of chlorhexidine from rods was measured by placing the rod on agar surface that was incubated with Staphylococcus epidermidis.

(coating compns. for delivering medicament from surface of medical device)

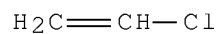
CN	Hydroxylapatite (Ca5(OH)(P04)3)	(CA INDEX NAME)
----	---------------------------------	-----------------

Component	Ratio	Component Registry Number
=====	=====	=====
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

CN	Ethene, chloro-, homopolymer (CA INDEX NAME)
----	--

CM 1

CRN 75-01-4
CMF C2 H3 Cl



RN 9003-56-9 HCA
CN 2-Propenenitrile, polymer with 1,3-butadiene and ethenylbenzene (CA
INDEX NAME)

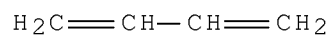
CM 1

CRN 107-13-1
CMF C3 H3 N



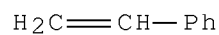
CM 2

CRN 106-99-0
CMF C4 H6



CM 3

CRN 100-42-5
CMF C8 H8



IC ICM A61K047-30

CC 63-7 (Pharmaceuticals)
 Section cross-reference(s): 35, 38

IT Acrylic polymers, biological studies
 Collagens, biological studies
 Elastins
 Fibrins
 Fluoropolymers, biological studies
 Laminins
 Polyamide fibers, biological studies
 Polyamides, biological studies
 Polycarbonates, biological studies
 Polyesters, biological studies
 Polyethers, biological studies
 Polyimides, biological studies
 Polyolefins
 Polysiloxanes, biological studies
 Polysulfones, biological studies
 Polyurethanes, biological studies
 Rubber, biological studies
 Silicone rubber, biological studies
 Thermoplastic rubber
 (coating compns. for delivering medicament from surface of
 medical device)

IT 1306-06-5, Hydroxyapatite 1344-28-1, Aluminum oxide,
 biological studies 1398-61-4, Chitin 7440-06-4, Platinum,
 biological studies 7440-22-4, Silver, biological studies
 7440-32-6, Titanium, biological studies 9002-84-0,
 Polytetrafluoroethylene 9002-86-2, Polyvinyl chloride
 9002-89-5, Polyvinyl alcohol 9003-01-4, Polyacrylic acid
 9003-31-0, Polyisoprene 9003-39-8, Polyvinyl pyrrolidone
 9003-54-7, Acrylonitrile-Styrene copolymer 9003-56-9,
 Acrylonitrile butadiene styrene copolymer 9004-34-6, Cellulose,
 biological studies 12035-60-8 12597-68-1, Stainless steel,
 biological studies 24937-78-8, Ethylene vinyl acetate copolymer
 24937-79-9, Polyvinylidene fluoride 24980-41-4, Polycaprolactone
 25038-71-5, Ethylene tetrafluoroethylene copolymer 25154-80-7,
 Poly(butylcyanoacrylate) 25248-42-4, Polycaprolactone
 26009-03-0, Polyglycolic acid 26023-30-3,
 Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26100-51-6, Polylactic
 acid 26124-68-5, Polyglycolic acid 26835-20-1, Acrylonitrile
 butadiene ethylene copolymer 112143-11-0
 (coating compns. for delivering medicament from surface of
 medical device)

OSC.G 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (8
 CITINGS)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L56 ANSWER 22 OF 45 HCA COPYRIGHT 2009 ACS on STN
 AN 135:157713 HCA Full-text
 TI Composite biomaterial including anisometric calcium phosphate
 reinforcement particles and related methods
 IN Roeder, Ryan K.; Turner, Charles H.
 PA Advanced Research and Technology Institute, Inc., USA
 SO PCT Int. Appl., 38 pp.
 CODEN: PIXXD2

DT Patent
 LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	
PI	WO 2001054746	A2	20010802	WO 2001-US3219	20010131

<--

WO 2001054746 A3 20020307
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
 CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH,
 GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,
 LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ,
 PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ,
 UA, UG, US, UZ, VN, YU, ZA, ZW
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH,
 CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,
 TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD,
 TG

AU	2001031264	A	20010807	AU 2001-31264	20010131
----	------------	---	----------	---------------	----------

<--

US	20030031698	A1	20030213	US 2002-182823	20020731
----	-------------	----	----------	----------------	----------

<--

PRAI US 2000-179238P P 20000131 <--
 WO 2001-US3219 W 20010131 <--

AB Composite biomaterials (e.g., for use as orthopedic implants), as well as methods of prepg. composite biomaterials, are disclosed. The composite biomaterial includes a matrix (e.g., a continuous phase) comprising a **thermoplastic** polymer, a calcium phosphate compn. that is curable in vivo, or combinations thereof. The composite biomaterial also includes an isometric calcium phosphate

reinforcement particles which are dispersed within the matrix. For example, a bone cement contg. poly(Me methacrylate) matrix reinforced with calcium hydroxyapatite (HA) particles in the shape of whiskers was prep'd. Mech. tests demonstrated the improved mech. properties of the HA whisker reinforced composites compared to the matrix alone as well as reinforcement with a conventional HA powder. The enhanced mech. properties over the conventional HA powder are attributed to the anisometric morphol. of the whisker reinforcements and their preferred orientation ("alignment") along the direction of applied stress. Shear stresses caused by material flow during injection developed a preferred crystallog. orientation of the HA whiskers within the matrix material and yielded anisotropic mech. properties. The degree of preferred orientation in HA whisker reinforced specimens was similar to that measured in human cortical bone.

IT 1306-06-5DP, Calcium hydroxyapatite, carbonated
 1306-06-5P, Calcium hydroxyapatite
 (composite biomaterial including anisometric calcium phosphate reinforcement particles for orthopedic implants)

RN 1306-06-5 HCA

CN Hydroxylapatite (Ca5(OH)(PO4)3) (CA INDEX NAME)

Component	Ratio	Component
		Registry Number
=====	=====	=====
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

RN 1306-06-5 HCA

CN Hydroxylapatite (Ca5(OH)(PO4)3) (CA INDEX NAME)

Component	Ratio	Component
		Registry Number
=====	=====	=====
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

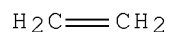
IT 9002-88-4, Polyethylene 9003-07-0, Polypropylene
 9003-53-6, Polystyrene

(composite biomaterial including anisometric calcium phosphate reinforcement particles for orthopedic implants)

RN 9002-88-4 HCA

CN Ethene, homopolymer (CA INDEX NAME)

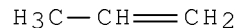
CRN 74-85-1
CMF C2 H4



RN 9003-07-0 HCA
CN 1-Propene, homopolymer (CA INDEX NAME)

CM 1

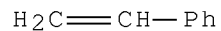
CRN 115-07-1
CMF C3 H6



RN 9003-53-6 HCA
CN Benzene, ethenyl-, homopolymer (CA INDEX NAME)

CM 1

CRN 100-42-5
CMF C8 H8

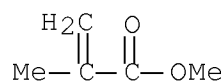


IT ~~9011-14-7~~, Poly(methyl methacrylate)
(composite biomaterial including anisometric calcium phosphate
reinforcement particles for orthopedic implants)

RN 9011-14-7 HCA
CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (CA INDEX
NAME)

CM 1

CRN 80-62-6
CMF C5 H8 O2



IC ICM A61L027-00
 CC 63-7 (Pharmaceuticals)
 Section cross-reference(s): 38, 78
 ST calcium phosphate ~~thermoplastic~~ polymer composite
 orthopedic implant
 IT Plastics, biological studies
 (thermoplastics; composite biomaterial including
 anisometric calcium phosphate reinforcement particles for
 orthopedic implants)
 IT 1306-01-0P, Tetracalcium phosphate ~~1306-06-5DP~~, Calcium
 hydroxyapatite, carbonated ~~1306-06-5P~~, Calcium
 hydroxyapatite 7757-93-9P, Dicalcium phosphate 7758-23-8P,
 Monocalcium phosphate 7758-87-4P, Tricalcium phosphate
 7789-77-7P, Dicalcium phosphate dihydrate 10031-30-8P, Monocalcium
 phosphate monohydrate 10103-46-5P, Dynafos 13767-12-9P,
 Octacalcium phosphate
 (composite biomaterial including anisometric calcium phosphate
 reinforcement particles for orthopedic implants)
 IT 79-10-7D, Acrylic acid, esters, polymers 79-41-4D, Methacrylic
 acid, esters, polymers ~~9002-88-4~~, Polyethylene
~~9003-07-0~~, Polypropylene 9003-29-6, Polybutylene
~~9003-53-6~~, Polystyrene 24980-41-4,
 Poly(ϵ -caprolactone) 25248-42-4,
 Poly[oxy(1-oxo-1,6-hexanediyl)] 26009-03-0, Poly(glycolide)
 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26063-00-3,
 Poly(hydroxybutyrate) 26161-42-2 26202-08-4, Poly(glycolide)
 26680-10-4, Poly(DL-lactide) 26744-04-7 27083-66-5,
 Poly(propylene fumarate) 29223-92-5, 1,4-Dioxan-2-one, homopolymer
 31621-87-1, Poly(dioxanone) 33135-50-1, Poly(L-lactide)
 75734-93-9, Poly(glyconate) 102190-94-3, Poly(hydroxyvaleric acid)
 (composite biomaterial including anisometric calcium phosphate
 reinforcement particles for orthopedic implants)
 IT ~~9011-14-7~~, Poly(methyl methacrylate)
 (composite biomaterial including anisometric calcium phosphate
 reinforcement particles for orthopedic implants)
 OSC.G 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (8
 CITINGS)
 RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L56 ANSWER 23 OF 45 HCA COPYRIGHT 2009 ACS on STN

AN 134:183541 HCA Full-text

TI Manufacture of porous ceramic implants with good biocompatibility
for artificial bone

IN Okada, Mitsufumi; Okura, Tsunetoshi; Sugimoto, Atsushi; Okuyama,
Masahiko

PA NGK Spark Plug Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	
PI	JP 2001046490	A	20010220	JP 1999-226675	199908 10

<--

JP 4358374 B2 20091104

PRAI JP 1999-226675 19990810 <--

AB Title implants are manufd. by molding material granules with
thermoplastic flammable dummy particles, heating the molds at a temp.
higher than the softening temp. of the dummy particles to deform or
melt the dummy particle, cooling the moldings to solidify the dummy
particles and bond the material granules, processing (e.g. cutting or
punching), and sintering. During the sintering process, the dummy
particles are burned away. A porous implant was manufd. from
granules contg. hydroxyapatite and Ca phosphate-based glass frit, and
poly(iso-Bu methacrylate) particles.

IT 9002-88-4, Polyethylene

(low-d., dummy particles; manuf. of porous ceramic implants with
good biocompatibility for artificial bone)

RN 9002-88-4 HCA

CN Ethene, homopolymer (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4

H₂C=CH₂

IT 1306-06-5, Hydroxyapatite

(manuf. of porous ceramic implants with good biocompatibility for artificial bone)

RN 1306-06-5 HCA

CN Hydroxylapatite (Ca₅(OH)(PO₄)₃) (CA INDEX NAME)

Component	Ratio	Component Registry Number
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

IC ICM A61L027-00

ICS A61L027-00

CC 63-7 (Pharmaceuticals)

Section cross-reference(s): 57

ST artificial bone porous implant ceramic manuf; polymethacrylate
hydroxyapatite calcium phosphate ceramic manuf;
~~thermoplastic~~ porous implant ceramic manuf

IT Plastics, uses

(~~thermoplastics~~, dummy particles; manuf. of porous
ceramic implants with good biocompatibility for artificial bone)

IT ~~9002-88-4~~, Polyethylene

(low-d., dummy particles; manuf. of porous ceramic implants with
good biocompatibility for artificial bone)

IT 1305-78-8, Calcium oxide, biological studies ~~1306-06-5~~,
Hydroxyapatite 1314-23-4, Zirconia, biological studies 1344-28-1,
1314-56-3, Diphosphorus pentaoxide, biological studies
Alumina, biological studies 10103-46-5, Calcium phosphate
(manuf. of porous ceramic implants with good biocompatibility for
artificial bone)

L56 ANSWER 24 OF 45 HCA COPYRIGHT 2009 ACS on STN

AN 134:136417 HCA Full-text

TI Microbiological water filter

IN Johnston, Arthur W.; Johnston, Arthur F.; Williams, Frank A.;
Hughes, Kenneth D.

PA Watervisions International, Inc., USA

SO U.S., 12 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
------------	------	------	-----------------	------

PI US 6187192	B1	20010213	US 1999-382278	
---------------	----	----------	----------------	--

					199908 25
				<--	
US 6180016	B1	20010130	US 2000-498155		200002 04
				<--	
CA 2382875	A1	20010301	CA 2000-2382875		200008 25
				<--	
CA 2382875	C	20070501			
WO 2001014257	A1	20010301	WO 2000-US40759		200008 25
				<--	
WO 2001014257	A9	20060713			
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
EP 1214273	A1	20020619	EP 2000-971061		200008 25
				<--	
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
BR 2000013576	A	20020716	BR 2000-13576		200008 25
				<--	
JP 2003507184	T	20030225	JP 2001-518359		200008 25
				<--	
JP 3706578	B2	20051012			
NZ 518060	A	20040130	NZ 2000-518060		200008 25
				<--	
AU 773551	B2	20040527	AU 2000-80354		

200008
25

CN 1170777 C 20041013 CN 2000-814694 <--

200008
25

US 20030015467 A1 20030123 US 2001-768115 <--

200101
23

US 6957743 B2 20051025 <--
MX 2002001910 A 20040421 MX 2002-1910

200202
22

ZA 2002002336 A 20030922 ZA 2002-2336 <--

200203
22

IN 2002KN00389 A 20060602 IN 2002-KN389 <--

200203
22

PRAI US 1999-382278 A3 19990825 <--
WO 2000-US40759 W 20000825 <--

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB A method and device for the filtration and/or purifn. of fluids water or other solns. contg. microbiol. contaminants, such as fluids contg. including bacteria and/or viruses, where the fluid water is passed through a purifn. material composed of apatite and absorption media in a fixed binder matrix.

IT 1306-06-5, Hydroxylapatite (Ca5(OH)(PO4)3) 9002-86-2
9002-88-4, Polyethylene 9003-07-0, Polypropylene
9003-53-6, Polystyrene
(microbiol. water filter)

RN 1306-06-5 HCA

CN Hydroxylapatite (Ca5(OH)(PO4)3) (CA INDEX NAME)

Component	Ratio	Component
		Registry Number
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

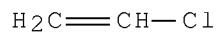
RN 9002-86-2 HCA

CN Ethene, chloro-, homopolymer (CA INDEX NAME)

CM 1

CRN 75-01-4

CMF C2 H3 Cl



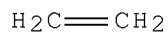
RN 9002-88-4 HCA

CN Ethene, homopolymer (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4



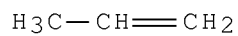
RN 9003-07-0 HCA

CN 1-Propene, homopolymer (CA INDEX NAME)

CM 1

CRN 115-07-1

CMF C3 H6



RN 9003-53-6 HCA

CN Benzene, ethenyl-, homopolymer (CA INDEX NAME)

CM 1

CRN 100-42-5

CMF C8 H8

H₂C=CH-Ph

IC ICM B01D039-00
INCL 210502100
CC 61-5 (Water)
IT Binders
(thermoplastic; microbiol. water filter)
IT 1306-06-5, Hydroxylapatite (Ca₅(OH)(PO₄)₃) 9002-86-2
9002-88-4, Polyethylene 9002-89-5 9003-07-0,
Polypropylene 9003-20-7 9003-53-6, Polystyrene
9004-34-6, Cellulose, uses 25322-68-3
(microbiol. water filter)
OSC.G 20 THERE ARE 20 CAPLUS RECORDS THAT CITE THIS RECORD (23
CITINGS)
RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L56 ANSWER 25 OF 45 HCA COPYRIGHT 2009 ACS on STN
AN 134:46843 HCA Full-text
TI Pacifiers for pet animals having batteries to generate electric
current
IN Axelrod, Glen S.
PA T.F.H. Publications Inc., USA
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	
PI	JP 2000350529	A	20001219	JP 2000-134171	200005 08
				<--	
	EP 1053675	A2	20001122	EP 2000-401164	200004 27
				<--	
	EP 1053675	A3	20011219		
	EP 1053675	B1	20061213		
	R: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	AT 347799	T	20070115	AT 2000-401164	

200004
27

CN 1157111 C 20040714 CN 2000-107502

200005
08

PRAI US 1999-303515 A 19990503 <--

AB In the pacifier comprising an outer surface and a battery housing which has 1st and 2nd electrodes, 1st and 2nd elec. conductors which extend opposite directions, and 1st and 2nd holes penetrating from the outer surface to the 1st and 2nd conductors, resp. When animal chews the pacifier, saliva is conducted into the elec. conductors through the holes to form a closed elec. circuit thus generating elec. current which makes teeth and gingiva healthy. The pacifier may have a part made from ion-releasing ceramics. The elec. conductor may contain trace elements such as Mo, Co, V, Be, Pt, and Re which generate ion upon elec. current to prevent dental caries and promote cementogenesis.

IT 1306-06-5, Hydroxylapatite
(ion-releasing; pacifiers for pet animals having batteries and saliva-conducting holes to close elec. circuit and generate elec. current to make tooth and gingiva healthy)

RN 1306-06-5 HCA

CN Hydroxylapatite (Ca₅(OH)(PO₄)₃) (CA INDEX NAME)

Component	Ratio	Component Registry Number
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

IT 9002-88-4, Polyethylene 9003-07-0, Polypropylene
9003-53-6, Polystyrene
(pacifiers for pet animals having batteries and saliva-conducting holes to close elec. circuit and generate elec. current to make tooth and gingiva healthy)

RN 9002-88-4 HCA

CN Ethene, homopolymer (CA INDEX NAME)

CM 1

CRN 74-85-1

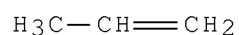
CMF C2 H4



RN 9003-07-0 HCA
CN 1-Propene, homopolymer (CA INDEX NAME)

CM 1

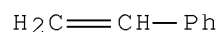
CRN 115-07-1
CMF C3 H6



RN 9003-53-6 HCA
CN Benzene, ethenyl-, homopolymer (CA INDEX NAME)

CM 1

CRN 100-42-5
CMF C8 H8



IC ICM A01K029-00
ICS C08K003-08; C08L063-00; C08L075-04
CC 63-7 (Pharmaceuticals)
Section cross-reference(s): 38
IT Plastics, biological studies
(thermoplastics; pacifiers for pet animals having
batteries and saliva-conducting holes to close elec. circuit and
generate elec. current to make tooth and gingiva healthy)
IT 1306-05-4, Fluorapatite (Ca₅F(PO₄)₃) 1306-06-5,
Hydroxylapatite
(ion-releasing; pacifiers for pet animals having batteries and
saliva-conducting holes to close elec. circuit and generate elec.
current to make tooth and gingiva healthy)
IT 9002-88-4, Polyethylene 9003-07-0, Polypropylene
9003-53-6, Polystyrene
(pacifiers for pet animals having batteries and saliva-conducting

holes to close elec. circuit and generate elec. current to make
tooth and gingiva healthy)

L56 ANSWER 26 OF 45 HCA COPYRIGHT 2009 ACS on STN

AN 134:9402 HCA Full-text

TI Polymer reinforced anatomically accurate bioactive prostheses

IN Giordano, Russell A.; Wu, Benjamin M.

PA Boston University, USA

SO PCT Int. Appl., 16 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	
PI	WO 2000071083	A1	20001130	WO 2000-US13607	200005 18
				<--	
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA	2371914	A1	20001130	CA 2000-2371914	200005 18
				<--	
EP	1178769	A1	20020213	EP 2000-932548	200005 18
				<--	
EP	1178769	B1	20060726		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, CY				
JP	2003500112	T	20030107	JP 2000-619395	200005 18
				<--	
US	6605293	B1	20030812	US 2000-574146	200005 18

AT 333861 T 20060815 AT 2000-932548

200005
18

US 20040024470 A1 20040205 US 2003-615466

200307
08

US 7052710 B2 20060530
PRAI US 1999-135009P P 19990520 <--
US 2000-182825P P 20000216 <--
US 2000-574146 A1 20000518 <--
WO 2000-US13607 W 20000518 <--

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Customized implants for use in reconstructive bone surgeries where anatomical accuracy and bone adaptation are important, such as plastic and cranio-maxillofacial reconstructions. This implant comprises a porous surface layer and a tough inner core of interpenetrating phase composite. The porous surface layer enhances the biocompatibility, tissue ingrowth, and implant stability. The tough inner core improves the mech. properties of the implant with a high fracture toughness and a low modulus. The anatomical accuracy of the implants will minimize the intra-operative manipulation required to maintain a stable host bone-implant interface.

IT 1306-06-5, Hydroxyapatite 9002-86-2, PVC
9002-88-4, Polyethylene 9003-07-0, Polypropylene
9003-53-6, Polystyrene

(polymer reinforced anatomically accurate bioactive prostheses)

RN 1306-06-5 HCA

CN Hydroxylapatite (Ca5(OH)(PO4)3) (CA INDEX NAME)

Component	Ratio	Component
		Registry Number
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

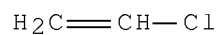
RN 9002-86-2 HCA

CN Ethene, chloro-, homopolymer (CA INDEX NAME)

CM 1

CRN 75-01-4

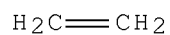
CMF C2 H3 Cl



RN 9002-88-4 HCA
CN Ethene, homopolymer (CA INDEX NAME)

CM 1

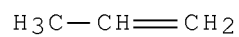
CRN 74-85-1
CMF C2 H4



RN 9003-07-0 HCA
CN 1-Propene, homopolymer (CA INDEX NAME)

CM 1

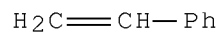
CRN 115-07-1
CMF C3 H6



RN 9003-53-6 HCA
CN Benzene, ethenyl-, homopolymer (CA INDEX NAME)

CM 1

CRN 100-42-5
CMF C8 H8



IC ICM A61K006-033
ICS A61L027-42
CC 63-7 (Pharmaceuticals)

Section cross-reference(s): 37

IT Plastics, biological studies
(thermoplastics; polymer reinforced anatomically
accurate bioactive prostheses)

IT 80-62-6, Methyl methacrylate 109-16-0, TEGDMA 1306-06-5,
Hydroxyapatite 1344-28-1, Alumina, biological studies 1565-94-2,
Bis-GMA 7440-32-6, Titanium, biological studies 7631-86-9,
Silica, biological studies 9002-84-0, PTFE 9002-86-2,
PVC 9002-88-4, Polyethylene 9003-07-0,
Polypropylene 9003-20-7, Polyvinyl acetate 9003-53-6,
Polystyrene 9004-34-6, Cellulose, biological studies 9041-80-9,
Polyphenylene oxide 24980-41-4, Polycaprolactone 25248-42-4,
Polycaprolactone 26009-03-0, Polyglycolic acid 26023-30-3,
Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26063-00-3,
Polyhydroxybutyrate 26100-51-6, Polylactic acid 26124-68-5,
Polyglycolic acid 26744-04-7 29223-92-5 31621-87-1,
Polydioxanone 31852-84-3, Polytrimethylene carbonate 37264-56-5
50862-75-4, Poly(oxycarbonyloxy-1,3-propanediyl)
(polymer reinforced anatomically accurate bioactive prostheses)

OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5
CITINGS)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L56 ANSWER 27 OF 45 HCA COPYRIGHT 2009 ACS on STN

AN 132:294873 HCA Full-text

TI Thermoplastic polyester compositions and films

IN Chikugi, Toshihiro; Shimizu, Yuzo; Morimoto, Tsutomu

PA Toray Industries, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

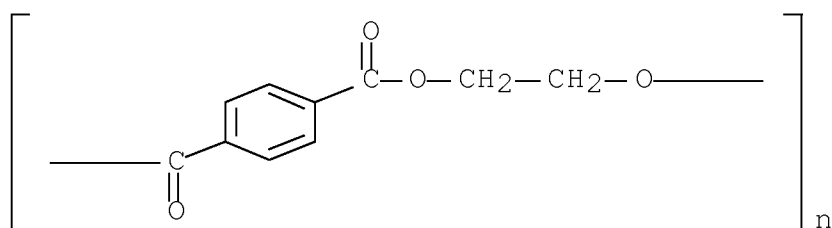
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	
PI	JP 2000119495	A	20000425	JP 1998-296569	199810 19
				<--	
	JP 4010064	B2	20071121		
	JP 2006249439	A	20060921	JP 2006-121607	200604 26
				<--	
PRAI	JP 1998-296569	A3	19981019	<--	

AB The compns. contain 0.001-10% (based on polyester) hydroxyapatite particles having av. primary particle size 5-200 nm, and av. secondary particle size 0.1-10 μ m with a relative std. deviation of ≤ 0.95 . The compns. are useful for manuf. of abrasion-resistant films for condensers, metal laminates, thermal stencil printing materials, and magnetic recording media.

IT 25038-59-9P, PET polyester, uses
(abrasion-resistant **thermoplastic** polyester films
contg. hydroxyapatite)

RN 25038-59-9 HCA

CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (CA INDEX NAME)



IT 1306-06-5, Hydroxyapatite
(abrasion-resistant **thermoplastic** polyester films
contg. hydroxyapatite)

RN 1306-06-5 HCA

CN Hydroxylapatite (Ca₅(OH)(PO₄)₃) (CA INDEX NAME)

Component	Ratio	Component Registry Number
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

IC ICM C08L067-02
ICS B32B015-08; C08J005-18; C08K003-32; G11B005-733

CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 37, 74

IT Capacitors
(abrasion-resistant **thermoplastic** polyester compns.
contg. hydroxyapatite for condensers)

IT Abrasion-resistant materials
Laminated plastic films
(abrasion-resistant **thermoplastic** polyester films)

contg. hydroxyapatite)

IT Polyesters, uses
(abrasion-resistant thermoplastic polyester films
contg. hydroxyapatite)

IT Cans
(abrasion-resistant thermoplastic polyester films
contg. hydroxyapatite for cans)

IT Magnetic tapes
(abrasion-resistant thermoplastic polyester films
contg. hydroxyapatite for magnetic tapes)

IT Laminated plastics, uses
(abrasion-resistant thermoplastic polyester films
contg. hydroxyapatite for stencil printing)

IT Thermal printing materials
(stencil; abrasion-resistant thermoplastic polyester
films contg. hydroxyapatite for stencil printing)

IT 9017-34-9P, Dimethyl isophthalate-dimethyl terephthalate-ethylene
glycol copolymer, sru 25038-59-9P, PET polyester, uses
25135-73-3P, Dimethyl isophthalate-dimethyl terephthalate-ethylene
glycol copolymer
(abrasion-resistant thermoplastic polyester films
contg. hydroxyapatite)

IT 1306-06-5, Hydroxyapatite
(abrasion-resistant thermoplastic polyester films
contg. hydroxyapatite)

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1
CITINGS)

L56 ANSWER 28 OF 45 HCA COPYRIGHT 2009 ACS on STN

AN 132:181734 HCA Full-text

TI Polyester compositions and their films for capacitors,
heat-sensitive stencil printing, metal sheet lamination, and
magnetic recording media

IN Chikugi, Toshihiro; Shimizu, Yuzo; Morimoto, Tsutomu

PA Toray Industries, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	

PI	JP 2000063642	A	20000229	JP 1998-232768	199808 19

<--

JP 3785823 B2 20060614

PRAI JP 1998-232768 19980819 <--

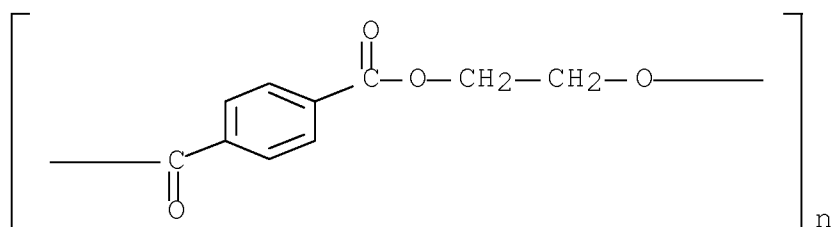
AB The compns., useful for magnetic tapes, food cans, printing paper, etc., contain **thermoplastic** polyesters and hydroxyapatite particles $\text{Ca}(\text{PO}_4)_l(\text{OH})_m(\text{CO}_3)_n\text{Y}_x$ (Y = anion; $l = 0.4-0.6$; $m = 0.1-0.4$; $n = 0-0.2$; $x = 0-0.2$) showing av. particle size $0.01-10\ \mu\text{m}$, sp. surface area $50-500\ \text{m}^2/\text{g}$, and relative std. deviation (σ) of particle diam. ≤ 0.5 . Thus, di-Me terephthalic acid and ethylene glycol were polymd. in the presence of catalysts and $\text{Ca}(\text{PO}_4)_0.54(\text{OH})_0.18(\text{CO}_3)_0.1$ (av. particle size $0.4\ \mu\text{m}$, $\sigma\ 0.2$, sp. surface area $160\ \text{m}^2/\text{g}$, pore vol. $0.45\ \text{mL/g}$) to give a polyester compn. showing sp. resistivity $6 + 109\ \Omega\text{-cm}$ and good particle dispersibility. A film of the compn. showed excellent wear and scratch resistance and dielec. breakdown voltage $640\ \text{V}/\mu\text{m}$.

IT 25038-59-9P, uses

(polyester films contg. hydrotalcite particles for capacitors, printing papers, food can lamination, and magnetic tapes)

RN 25038-59-9 HCA

CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (CA INDEX NAME)



IT 221359-88-2, Calcium carbonate hydroxide phosphate
($\text{Ca}(\text{CO}_3)_0.1(\text{OH})_0.18(\text{PO}_4)_0.54$) 221359-92-8, Calcium
hydroxide phosphate ($\text{Ca}(\text{OH})_0.18(\text{HPO}_4)_0.1(\text{PO}_4)_0.54$)
259685-46-6, Calcium carbonate hydroxide phosphate
($\text{Ca}(\text{CO}_3)_0.05(\text{OH})_0.19(\text{PO}_4)_0.57$) 259685-47-7, Calcium
carbonate hydroxide phosphate ($\text{Ca}(\text{CO}_3)_0.2(\text{OH})_0.16(\text{PO}_4)_0.48$)
259685-48-8, Calcium chloride hydroxide phosphate
($\text{CaCl}_0.05(\text{OH})_0.2(\text{PO}_4)_0.59$)

(polyester films contg. hydrotalcite particles for capacitors, printing papers, food can lamination, and magnetic tapes)

RN 221359-88-2 HCA

CN Calcium carbonate hydroxide phosphate ($\text{Ca}(\text{CO}_3)_0.1(\text{OH})_0.18(\text{PO}_4)_0.54$)
(CA INDEX NAME)

Component	Ratio	Component
		Registry Number
HO	0.18	14280-30-9
O4P	0.54	14265-44-2
Ca	1	7440-70-2
CO3	0.1	3812-32-6

RN 221359-92-8 HCA

CN Calcium hydroxide phosphate (Ca(OH)0.18(HPO4)0.1(PO4)0.54) (CA INDEX NAME)

Component	Ratio	Component
		Registry Number
HO	0.18	14280-30-9
O4P	0.54	14265-44-2
HO4P	0.1	14066-19-4
Ca	1	7440-70-2

RN 259685-46-6 HCA

CN Calcium carbonate hydroxide phosphate (Ca(CO3)0.05(OH)0.19(PO4)0.57) (CA INDEX NAME)

Component	Ratio	Component
		Registry Number
HO	0.19	14280-30-9
O4P	0.57	14265-44-2
Ca	1	7440-70-2
CO3	0.05	3812-32-6

RN 259685-47-7 HCA

CN Calcium carbonate hydroxide phosphate (Ca(CO3)0.2(OH)0.16(PO4)0.48) (CA INDEX NAME)

Component	Ratio	Component
		Registry Number
HO	0.16	14280-30-9
O4P	0.48	14265-44-2
Ca	1	7440-70-2
CO3	0.2	3812-32-6

RN 259685-48-8 HCA

CN Calcium chloride hydroxide phosphate (CaCl0.05(OH)0.2(PO4)0.59) (CA INDEX NAME)

Component	Ratio	Component
		Registry Number
=====+	=====+	=====
Cl	0.05	22537-15-1
HO	0.2	14280-30-9
O4P	0.59	14265-44-2
Ca	1	7440-70-2

IC ICM C08L067-02
ICS B32B027-36; C08J005-18; C08K003-32

CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 17, 55, 74, 77

IT 9017-34-9P, Ethylene-glycol-dimethyl isophthalate-dimethyl terephthalate copolymer, ~~sru 25038-59-9P~~, uses 25038-91-9P, 1,4-Cyclohexanedimethanol-ethylene glycol-terephthalic acid copolymer 25135-73-3P, Ethylene-glycol-dimethyl isophthalate-dimethyl terephthalate copolymer 25915-92-8P, Ethylene glycol-naphthalene-2,6-dicarboxylic acid-terephthalic acid copolymer
(polyester films contg. hydrotalcite particles for capacitors, printing papers, food can lamination, and magnetic tapes)

IT 221359-88-2, Calcium carbonate hydroxide phosphate (Ca(CO3)0.1(OH)0.18(PO4)0.54) 221359-92-8, Calcium hydroxide phosphate (Ca(OH)0.18(HPO4)0.1(PO4)0.54) 259685-46-6, Calcium carbonate hydroxide phosphate (Ca(CO3)0.05(OH)0.19(PO4)0.57) 259685-47-7, Calcium carbonate hydroxide phosphate (Ca(CO3)0.2(OH)0.16(PO4)0.48) 259685-48-8, Calcium chloride hydroxide phosphate (CaCl0.05(OH)0.2(PO4)0.59)
(polyester films contg. hydrotalcite particles for capacitors, printing papers, food can lamination, and magnetic tapes)

L56 ANSWER 29 OF 45 HCA COPYRIGHT 2009 ACS on STN

AN 131:345387 HCA Full-text

TI Electret sheets and their manufacture

IN Matsumoto, Kazuhiko; Nishiura, Eiichi; Omori, Taira

PA Toray Industries, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	

PI	JP 11319441	A	19991124	JP 1998-139644	

<--

PRAI JP 1998-139644 19980521 <--

AB A **thermoplastic** fiber sheet carrying Ca phosphates is claimed as an electret sheet having surface charge $d. \geq 1.0 + 10^{-10}$ C/cm². The sheet is prepd. by application of Ca phosphate on a **thermoplastic** fiber sheet followed by treatment for electret formation. The sheets have antibacterial and antiviral characteristics and are useful as adsorbents for toxic gas, dust, mist, odorous gases, etc.

IT 9002-88-4, Polyethylene
(fibers; **thermoplastic** fiber sheets carrying calcium phosphates as electrets and their prepn.)

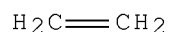
RN 9002-88-4 HCA

CN Ethene, homopolymer (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4



IT 1306-06-5, Hydroxyapatite
(**thermoplastic** fiber sheets carrying calcium phosphates as electrets and their prepn.)

RN 1306-06-5 HCA

CN Hydroxylapatite (Ca₅(OH)(PO₄)₃) (CA INDEX NAME)

Component	Ratio	Component
		Registry Number
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

IC ICM B01D039-14

ICS B01D046-00; B01D053-04; B01D053-34; B01D053-81; D06M010-00;
D06M010-06; D06M011-71; D06M023-08; D06M101-22

CC 76-10 (Electric Phenomena)

Section cross-reference(s): 40, 47, 59

ST calcium phosphate coated **thermoplastic** fiber electret;
particle adsorbent fiber sheet electret; antibacterial electret
sheet manuf; antiviral electret sheet manuf

IT Polyolefin fibers
 (ethylene; thermoplastic fiber sheets carrying calcium phosphates as electrets and their prepn.)

IT Fluoropolymers, processes
 (fibers; thermoplastic fiber sheets carrying calcium phosphates as electrets and their prepn.)

IT Synthetic polymeric fibers, processes
 (tetrafluoroethylene; thermoplastic fiber sheets carrying calcium phosphates as electrets and their prepn.)

IT Electrets

IT Filters
 (thermoplastic fiber sheets carrying calcium phosphates as electrets and their prepn.)

IT Polypropene fibers, processes
 (thermoplastic fiber sheets carrying calcium phosphates as electrets and their prepn.)

IT Textiles
 (thermoplastic fiber; thermoplastic fiber sheets carrying calcium phosphates as electrets and their prepn.)

IT 9002-84-0, Polytetrafluoroethylene 9002-88-4, Polyethylene 25085-53-4, Isotactic polypropene
 (fibers; thermoplastic fiber sheets carrying calcium phosphates as electrets and their prepn.)

IT 1306-06-5, Hydroxyapatite
 (thermoplastic fiber sheets carrying calcium phosphates as electrets and their prepn.)

L56 ANSWER 30 OF 45 HCA COPYRIGHT 2009 ACS on STN

AN 130:255982 HCA Full-text

TI Development of a binder formulation for fused deposition of ceramics

AU McNulty, Thomas F.; Cornejo, Ivan; Mohammadi, Farhad; Danforth, Stephen C.; Safari, Ahmad

CS Department of Ceramic and Materials Engineering, Rutgers University, Piscataway, NJ, 08854, USA

SO Solid Freeform Fabrication Symposium Proceedings (1998)
 613-620

CODEN: SFFPF4; ISSN: 1053-2153

PB University of Texas at Austin

DT Journal

LA English

AB A new binder formulation has been developed for Fused Deposition of Ceramics (FDC) which consists of com.-available polymer constituents. This formulation was used in conjunction with lead zirconate titanate (PZT) and hydroxyapatite (HAP) powders. Adsorption studies were performed to test the effectiveness of several carboxylic acids and alcs. on the dispersion of these powders in the binder system. In both cases, it was found that stearic acid was most effective as a

dispersant for the ceramic powder/~~thermoplastic~~ system. After a suitable dispersant was chosen, ceramic powders were compounded with the binder formulation to yield 55 vol.% ceramic-loaded materials. The resultant compd. was used to make filament suitable for use in a modified Stratasys 3D-Modeler. The filament was well suited for FDC usage, and the parts made using FDC contained no detectable filament-related defects.

IT ~~1306-06-5~~, Hydroxylapatite (Ca₅(OH)(PO₄)₃)
 (bioceramics; development of polymer binder-dispersant
 formulation for fused deposition of ceramics)
 RN 1306-06-5 HCA
 CN Hydroxylapatite (Ca₅(OH)(PO₄)₃) (CA INDEX NAME)

Component	Ratio	Component Registry Number
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

IT 9002-88-4, Polyethylene
 (wax, binder mixt.; development of polymer binder-dispersant
 formulation for fused deposition of ceramics)
 RN 9002-88-4 HCA
 CN Ethene, homopolymer (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4

H₂C=CH₂

CC 57-2 (Ceramics)
 Section cross-reference(s): 38, 63, 76
 IT ~~1306-06-5~~, Hydroxylapatite (Ca₅(OH)(PO₄)₃)
 (bioceramics; development of polymer binder-dispersant
 formulation for fused deposition of ceramics)
 IT 9002-88-4, Polyethylene
 (wax, binder mixt.; development of polymer binder-dispersant
 formulation for fused deposition of ceramics)
 OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2
 CITINGS)
 RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L56 ANSWER 31 OF 45 HCA COPYRIGHT 2009 ACS on STN
 AN 130:238278 HCA Full-text
 TI Polyester composition for films
 IN Tsuzuki, Toshihiro; Shimizu, Yuzo; Ueda, Takashi; Morimoto, Tsutomu
 PA Toray Industries, Inc., Japan
 SO PCT Int. Appl., 37 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
PI WO 9915590	A1	19990401	WO 1998-JP3523	19980807
<--				
W: BR, CA, CN, KR, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 11092637	A	19990406	JP 1997-260011	19970925
<--				
JP 3653948	B2	20050602		
JP 11209589	A	19990803	JP 1998-9696	19980121
<--				
CA 2271860	A1	19990401	CA 1998-2271860	19980807
<--				
EP 942045	A1	19990915	EP 1998-936694	19980807
<--				
EP 942045	B1	20060517		
R: BE, DE, ES, FR, GB, IT, FI				
CN 1140581	C	20040303	CN 1998-801390	19980807
<--				
US 6048626	A	20000411	US 1999-297349	199904

<--

PRAI JP 1997-260011 A 19970925 <--
 JP 1998-9696 A 19980121 <--
 WO 1998-JP3523 W 19980807 <--

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The compn. having good slip properties and wearing resistance, good elec. properties, punchability, processability in metal laminate prodn., and flavor preservation, comprises a **thermoplastic** polyester resin and hydroxyapatite $\text{Ca}(\text{PO}_4)_1(\text{OH})_m(\text{CO}_3)_n\text{Y}_x$ wherein Y is any anion other than phosphate, hydroxy, and carbonate groups, 1 is 0.4 to 0.6, m is 0.1 to 0.4, n is 0 to 0.2, x is 0 to 0.2, and $3X_1+m+2X_n+zX_x=2$ (z being the valence of the anion Y)] and having an av. particle diam. of 0.01 to 10 μm and a sp. surface area of 50 to 500 m^2/g . Thus, polyester form di-Me terephthalate and ethylene glycol 100 and $\text{Ca}(\text{PO}_4)_0.6(\text{OH})_0.2$ (av. diam. 0.4 μm , sp. surface area 160 m^2/g , micropore vol. 0.45 mL/g) 0.4 parts were extruded to a film, showing good wear resistance and damage voltage 620/V μm .

IT 9003-53-6

(highly crosslinked particles; in polyester compn. for films)

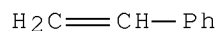
RN 9003-53-6 HCA

CN Benzene, ethenyl-, homopolymer (CA INDEX NAME)

CM 1

CRN 100-42-5

CMF C8 H8



IT 12167-74-7, Calcium hydroxide phosphate ($\text{Ca}_5(\text{OH})(\text{PO}_4)_3$)

221359-88-2, Calcium carbonate hydroxide phosphate

($\text{Ca}(\text{CO}_3)_0.1(\text{OH})_0.18(\text{PO}_4)_0.54$) 221359-92-8, Calcium

hydroxide phosphate ($\text{Ca}(\text{OH})_0.18(\text{HPO}_4)_0.1(\text{PO}_4)_0.54$)

221359-94-0, Calcium hydroxide phosphate

($\text{Ca}(\text{OH})_0.35(\text{PO}_4)_0.55$)

(in polyester compn. for films)

RN 12167-74-7 HCA

CN Calcium hydroxide phosphate ($\text{Ca}_5(\text{OH})(\text{PO}_4)_3$) (CA INDEX NAME)

Component	Ratio	Component
		Registry Number
HO	1	14280-30-9

O4P		3		14265-44-2
Ca		5		7440-70-2

RN 221359-88-2 HCA

CN Calcium carbonate hydroxide phosphate (Ca(CO3)0.1(OH)0.18(PO4)0.54)
(CA INDEX NAME)

Component		Ratio		Component
				Registry Number
=====+				
HO		0.18		14280-30-9
O4P		0.54		14265-44-2
Ca		1		7440-70-2
CO3		0.1		3812-32-6

RN 221359-92-8 HCA

CN Calcium hydroxide phosphate (Ca(OH)0.18(HPO4)0.1(PO4)0.54) (CA INDEX NAME)

Component		Ratio		Component
				Registry Number
=====+				
HO		0.18		14280-30-9
O4P		0.54		14265-44-2
HO4P		0.1		14066-19-4
Ca		1		7440-70-2

RN 221359-94-0 HCA

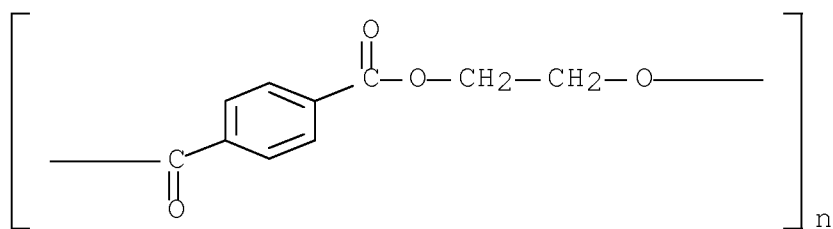
CN Calcium hydroxide phosphate (Ca(OH)0.35(PO4)0.55) (CA INDEX NAME)

Component		Ratio		Component
				Registry Number
=====+				
HO		0.35		14280-30-9
O4P		0.55		14265-44-2
Ca		1		7440-70-2

IT ~~25038-59-9~~, PET polyester, properties
(polyester compn. for films)

RN 25038-59-9 HCA

CN Poly(oxy-1,2-ethanediyloxycarbonyl-1,4-phenylenecarbonyl) (CA INDEX NAME)



IC ICM C08L067-02
ICS B32B015-08; B32B027-36; C08K003-32; C08J005-18; G11B005-704;
H01G004-18

CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 38

IT 9003-53-6
(highly crosslinked particles; in polyester compn. for films)

IT 12167-74-7, Calcium hydroxide phosphate (Ca₅(OH)(PO₄)₃)
221359-88-2, Calcium carbonate hydroxide phosphate
(Ca(CO₃)_{0.1}(OH)_{0.18}(PO₄)_{0.54}) 221359-92-8, Calcium
hydroxide phosphate (Ca(OH)_{0.18}(HPO₄)_{0.1}(PO₄)_{0.54})
221359-94-0, Calcium hydroxide phosphate
(Ca(OH)_{0.35}(PO₄)_{0.55})
(in polyester compn. for films)

IT 25038-59-9, PET polyester, properties 30497-78-0,
1,4-Butanediol-ethylene glycol-terephthalic acid copolymer
118611-01-1, Ethylene glycol-naphthalenedicarboxylic
acid-terephthalic acid copolymer 132908-61-3,
Cyclohexane-1,4-diol-ethylene glycol-terephthalic acid copolymer
(polyester compn. for films)

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1
CITINGS)

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L56 ANSWER 32 OF 45 HCA COPYRIGHT 2009 ACS on STN

AN 130:172236 HCA Full-text

TI Adsorbent sheets laminated on building material board for improved
environmentally clean-up function

IN Sotoki, Takeyuki; Oda, Tatsuya; Sekine, Yoshika

PA Hitachi Chemical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
PI	JP 11034204	A	19990209	JP 1997-192413	19970717

<--

JP 4122540 B2 20080723
PRAI JP 1997-192413 19970717 <--

AB The adsorbent sheets useful for removing and decomp. volatile org. compd. (VOC) emissions from ambient air in closed rooms and offices, etc. comprise (a) fine metal and/or metal oxide powder (av. diam. 0.01-10 μ m), (b) adsorbing substances such as activated carbon, zeolites, silica gel, sepiolite, active alumina, hydroxyapatite or activated white clays (av. diam. .apprx.300 μ m), (c) thermoplastic resin powder, and (d) a nonwoven plastic or glass fiber support (porosity 60-99%). The adsorbent sheets may be clad or laminated on the surface of building material boards such as wall panels for removing VOC, cigarette odor, mercaptans from polluted air.

IT ~~1306-06-5~~, Hydroxyapatite
(activated, powder coating on nonwoven plastic or glass fiber support; as adsorbent sheets laminated on building material board for improved environmentally clean-up function)

RN 1306-06-5 HCA

CN Hydroxylapatite (Ca₅(OH)(PO₄)₃) (CA INDEX NAME)

Component	Ratio	Component Registry Number
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

IT ~~9002-88-4~~
(powder coating on nonwoven plastic or glass fiber support; as adsorbent sheets laminated on building material board for improved environmentally clean-up function)

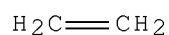
RN 9002-88-4 HCA

CN Ethene, homopolymer (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4



IC ICM B32B007-02
 ICS A61L009-01; B01D053-04; B01J020-28; D21H027-20; E04B001-92
 CC 59-4 (Air Pollution and Industrial Hygiene)
 IT ~~1306-06-5~~, Hydroxyapatite 1344-28-1, Alumina, processes
 7440-44-0, Carbon, processes 9003-04-7, Sodium polyacrylate
 (activated, powder coating on nonwoven plastic or glass fiber
 support; as adsorbent sheets laminated on building material board
 for improved environmentally clean-up function)
 IT 1313-13-9, Manganese dioxide, processes 1317-38-0, Copper oxide
 (CuO), processes 7429-90-5, Aluminum, processes 7439-89-6, Iron,
 processes 7439-95-4, Magnesium, processes 7439-96-5, Manganese,
 processes 7440-02-0, Nickel, processes 7440-05-3, Palladium,
 processes 7440-06-4, Platinum, processes 7440-21-3, Silicon,
 processes 7440-22-4, Silver, processes 7440-24-6, Strontium,
 processes 7440-32-6, Titanium, processes 7440-39-3, Barium,
 processes 7440-45-1, Cerium, processes 7440-50-8, Copper,
 processes 7440-62-2, Vanadium, processes 7440-66-6, Zinc,
 processes 7440-70-2, Calcium, processes ~~9002-88-4~~
 63800-37-3, Sepiolite
 (powder coating on nonwoven plastic or glass fiber support; as
 adsorbent sheets laminated on building material board for
 improved environmentally clean-up function)

L56 ANSWER 33 OF 45 HCA COPYRIGHT 2009 ACS on STN
 AN 127:140596 HCA Full-text
 OREF 127:27025a,27028a
 TI Implant materials and method for their manufacture
 IN Shikinami, Yasuo; Kwarada, Hiroyuki
 PA Takiron Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	
PI	JP 09173435	A	19970708	JP 1995-352620	199512 27
				<--	
	JP 3243685	B2	20020107		
PRAI	JP 1995-352620		19951227	<--	

AB Implant materials for prevention of loosening and dislocation in long-term prosthesis are prepd. by incorporation of biocompatible and bioactive bioceramic powder onto the surface layer of a biol. inactive or bioabsorbable thermoplastic polymer structure and heat treatment. The thermoplastic polymers are e.g. polyethylene and polypropylene and bioceramic powders are e.g. inactive hydroxyapatite and bioglass or bioabsorbable polylactic acid and lactic acid-glycolic acid copolymer.

IT 1306-06-5, Hydroxyapatite 9002-88-4, Polyethylene
9003-07-0, Polypropylene
(implant materials and method for their manuf.)

RN 1306-06-5 HCA

CN Hydroxylapatite (Ca5(OH)(PO4)3) (CA INDEX NAME)

Component	Ratio	Component Registry Number
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

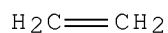
RN 9002-88-4 HCA

CN Ethene, homopolymer (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4



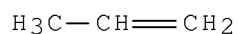
RN 9003-07-0 HCA

CN 1-Propene, homopolymer (CA INDEX NAME)

CM 1

CRN 115-07-1

CMF C3 H6



IC ICM A61L027-00
ICS A61B017-58; A61F002-30
CC 63-7 (Pharmaceuticals)
ST implant bioceramic **thermoplastic** polymer
IT Plastics, biological studies
(**thermoplastics**; implant materials and method for their
manuf.)
IT 1306-01-0, Tetracalcium phosphate ~~1306-06-5~~,
Hydroxyapatite 7758-87-4, Tricalcium phosphate 7789-77-7
9002-84-0, Polytetrafluoroethylene ~~9002-88-4~~, Polyethylene
~~9003-07-0~~, Polypropylene 13767-12-9, Octacalcium phosphate
14096-86-7 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)]
26100-51-6, Polylactic acid 34346-01-5, Lactic acid-glycolic acid
copolymer 80294-22-0, Ceravital
(implant materials and method for their manuf.)
OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1
CITINGS)

L56 ANSWER 34 OF 45 HCA COPYRIGHT 2009 ACS on STN

AN 127:39757 HCA Full-text

OREF 127:7519a,7522a

TI Reinforcement of polyethylene and starch based
thermoplastics with hydroxylapatite and bioactive glasses

AU Reis, R. L.; Cunha, A. M.; Lacerda, S. R.; Fernandes, M. H.;
Correia, R. N.

CS Dep. Metallurgical Eng., Univ. Porto, Oporto, 4099, Port.

SO Bioceramics, Proceedings of the International Symposium on Ceramics
in Medicine (1996), 9, 435-438

CODEN: BPCMFx

PB Elsevier

DT Journal

LA English

AB Both sintered hydroxylapatite (HA) and bioactive glasses (BG) of the
SiO₂-3CaO-P₂O₅-MgO system were incorporated into 2 different
polymeric matrixes: polyethylene (PE) and starch-based biodegradable
blends (SEVA), in wt. fractions varying from 10 to 30%. The
composites were processed either by compression molding or injection
molding, after a previous compounding stage. It was possible to
attain a range of mech. properties that may allow the use of these
materials on soft tissue replacement applications. As expected the
increase in the amt. of reinforcement led to an increment in
stiffness. However a redn. both in the tensile strength and strain
at break was noticeable. The type of reinforcement and its
granulometric distribution has a deep effect on the achieved mech.
properties. Injection molding originated the best results due to a
much more intensive shear mixing effect and to the higher mol.
orientation of the matrix. Preliminary results on compounding by co-

rotating twin-screw extrusion prior to processing showed that modulus can be significantly enhanced by optimizing the composites processing route.

IT 1306-06-5, Hydroxylapatite 9002-88-4, Polyethylene (reinforcement of polyethylene- and starch-based **thermoplastics** with hydroxylapatite and bioactive glasses)

RN 1306-06-5 HCA

CN Hydroxylapatite (Ca₅(OH)(PO₄)₃) (CA INDEX NAME)

Component	Ratio	Component
		Registry Number
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

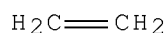
RN 9002-88-4 HCA

CN Ethene, homopolymer (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4



CC 63-7 (Pharmaceuticals)

ST polyethylene **thermoplastic** composite hydroxylapatite bioactive glass; starch polyethylene composite

IT Prosthetic materials and Prosthetics

Prosthetic materials and Prosthetics

(composites, implants; reinforcement of polyethylene- and starch-based **thermoplastics** with hydroxylapatite and bioactive glasses)

IT Molding of plastics and rubbers

(compression; reinforcement of polyethylene- and starch-based **thermoplastics** with hydroxylapatite and bioactive glasses)

IT Molding of plastics and rubbers

(injection; reinforcement of polyethylene- and starch-based **thermoplastics** with hydroxylapatite and bioactive glasses)

IT Strain

Tensile strength
(reinforcement of polyethylene- and starch-based
thermoplastics with hydroxylapatite and bioactive
glasses)

IT Glass, biological studies
(reinforcement of polyethylene- and starch-based
thermoplastics with hydroxylapatite and bioactive
glasses)

IT 1305-78-8, Calcium oxide (CaO), biological studies 1306-06-5
, Hydroxylapatite 1309-48-4, Magnesium oxide (MgO), biological
studies 1314-56-3, Phosphorus oxide (P2O5), biological studies
7631-86-9, Silica, biological studies 9002-88-4,
Polyethylene 182801-80-5, Ethylene-vinyl alcohol-starch copolymer
(reinforcement of polyethylene- and starch-based
thermoplastics with hydroxylapatite and bioactive
glasses)

OSC.G 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6
CITINGS)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L56 ANSWER 35 OF 45 HCA COPYRIGHT 2009 ACS on STN

AN 124:234077 HCA Full-text

OREF 124:43375a,43378a

TI Copper salts for laser marking of **thermoplastic**
compositions

IN Faber, Rein M.; Hoeks, Theodorus L.; Volkers, Andre

PA General Electric Co., USA

SO U.S., 7 pp.
CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	

PI	US 5489639	A	19960206	US 1994-292644	199408 18
				<--	
	EP 697433	A1	19960221	EP 1995-103734	199503 15
				<--	
	EP 697433	B1	20030827		
	R: BE, DE, ES, FR, GB, IT, NL				
	JP 08187951	A	19960723	JP 1995-209827	

<--

PRAI US 1994-292644 A 19940818 <--

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The comps. comprise copper salts (av. diam. $\leq 10 \mu\text{m}$) selected from copper phosphate, copper sulfate, copper hydroxide phosphate and copper thiocyanate and **thermoplastics** (e.g., Valox 325C). The comps. can be laser marked to provide a visibly distinct and sep. identifiable region which preferably differs in overall color from the base material by a ΔE value of at least 10-20.

IT **148791-53-1**, Copper hydroxide phosphate
(copper salts for laser marking of **thermoplastic** comps.)

RN 148791-53-1 HCA

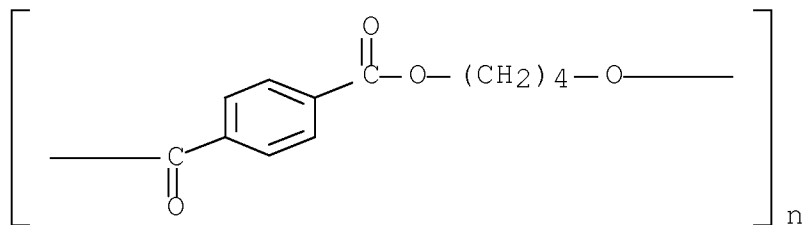
CN Copper hydroxide phosphate (CA INDEX NAME)

Component	Ratio	Component Registry Number
HO	x	14280-30-9
O4P	x	14265-44-2
Cu	x	7440-50-8

IT **24968-12-5**, Valox 325C
(copper salts for laser marking of **thermoplastic** comps.)

RN 24968-12-5 HCA

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (CA INDEX NAME)



IC ICM C08K003-32

INCL 524417000

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 73

ST laser marking copper salt **thermoplastic**; copper sulfate

polyester laser marking; thiocyanate copper thermoplastic laser marking; phosphate copper thermoplastic laser marking; sulfate copper thermoplastic laser marking

IT Laser radiation Marking
(copper salts for laser marking of thermoplastic compns.)

IT Rubber, synthetic
(vinylidene-based; copper salts for laser marking of thermoplastic compns.)

IT Plastics
(thermo-, copper salts for laser marking of thermoplastic compns.)

IT 7758-98-7, Copper sulfate, uses 10103-48-7, Copper phosphate 26656-82-6, Copper thiocyanate 30981-48-7, Copper phosphate 148791-53-1, Copper hydroxide phosphate
(copper salts for laser marking of thermoplastic compns.)

IT 24968-12-5, Valox 325C
(copper salts for laser marking of thermoplastic compns.)

OSC.G 9 THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD (9 CITINGS)

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L56 ANSWER 36 OF 45 HCA COPYRIGHT 2009 ACS on STN

AN 124:120062 HCA Full-text

OREF 124:22317a,22320a

TI Manufacture of functionalized nonwoven fabrics by dry process

IN Hiraide, Tsuneo

PA Asahi Optical Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	
PI	JP 07268767	A	19951017	JP 1994-51888	19940323

<--

PRAI JP 1994-51888 19940323 <--

AB Functional particles are added on at least the surface of nonwoven fabrics contg. at least partially thermoplastic polymer fibers, then

at least the surface of the **thermoplastic** fibers are softened under heat to fix the particles on the surface to give the title products. Thus, porous hydroxyapatite (Ca/P 1.67) and polyethylene nonwoven fabric were mixed and treated by dry hot air to give a fabric supporting 22-25% of the particles.

IT 9002-88-4, Polyethylene 9003-07-0, Polypropylene 25038-59-9, PET, uses

(fibers; dry hot fixing of functionalizing particles on nonwoven fabrics including **thermoplastic** resins)

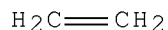
RN 9002-88-4 HCA

CN Ethene, homopolymer (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4



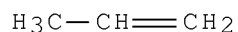
RN 9003-07-0 HCA

CN 1-Propene, homopolymer (CA INDEX NAME)

CM 1

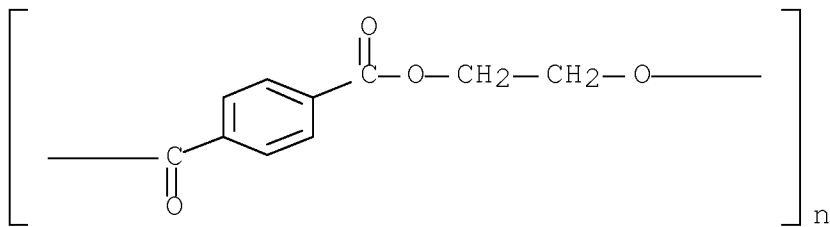
CRN 115-07-1

CMF C3 H6



RN 25038-59-9 HCA

CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (CA INDEX NAME)



IT 1306-06-5, Hydroxyapatite
(particles; dry hot fixing of functionalizing particles on
nonwoven fabrics including thermoplastic resins)

RN 1306-06-5 HCA

CN Hydroxylapatite (Ca5(OH)(PO4)3) (CA INDEX NAME)

Component	Ratio	Component	Registry Number
HO	1		14280-30-9
O4P	3		14265-44-2
Ca	5		7440-70-2

IC ICM D06M011-00

ICS A01N059-00; A61L009-01; D04H001-40; D04H003-00; D06M023-08

CC 40-10 (Textiles and Fibers)

ST functionalized nonwoven fabric dry fixing; thermoplastic
fiber nonwoven fabric functionalization; heat fixing particle
functionalization fabric; hydroxyapatite supported polyethylene
nonwoven fabric

IT Molecular sieves

(dry hot fixing of functionalizing particles on nonwoven fabrics
including thermoplastic resins)

IT Silica gel, uses

(dry hot fixing of functionalizing particles on nonwoven fabrics
including thermoplastic resins)

IT Polyester fibers, uses

Polypropene fibers, uses

(dry hot fixing of functionalizing particles on nonwoven fabrics
including thermoplastic resins)

IT Bactericides, Disinfectants, and Antiseptics

Deodorants

(particles; dry hot fixing of functionalizing particles on
nonwoven fabrics including thermoplastic resins)

IT Zeolites, uses

(particles; dry hot fixing of functionalizing particles on
nonwoven fabrics including thermoplastic resins)

IT Polyolefin fibers

(ethylene, dry hot fixing of functionalizing particles on
nonwoven fabrics including thermoplastic resins)

IT 9002-88-4, Polyethylene 9003-07-0, Polypropylene

25038-59-9, PET, uses

(fibers; dry hot fixing of functionalizing particles on nonwoven
fabrics including thermoplastic resins)

IT 1306-06-5, Hydroxyapatite 7440-44-0, Carbon, uses

7758-87-4, Tricalcium phosphate 13463-67-7, Titanium oxide, uses
173011-37-5, Kayamax

(particles; dry hot fixing of functionalizing particles on
nonwoven fabrics including thermoplastic resins)

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1
CITINGS)

L56 ANSWER 37 OF 45 HCA COPYRIGHT 2009 ACS on STN

AN 121:303022 HCA Full-text

OREF 121:55437a,55440a

TI Manufacture of functional nonwoven fabrics with odor absorption and
antibacterial properties

IN Hiraide, Tsuneo; Hirayama, Yasuhiko; Futaki, Koji

PA Asahi Optical Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	

PI	JP 06192961	A	19940712	JP 1993-227126	199309 13

<--

JP 2916068 B2 19990705

PRAI JP 1992-268474 A1 19921007 <--

AB The title nonwoven fabrics are prepd. by impregnating or coating
nonwoven fabrics comprising 10-100% thermoplastic polymer fibers (A)
with aq. dispersion contg. 1-50% functional particles comprising Ca
phosphate compds. having Ca-P mol ratio 1.0-2.0, TiO₂, activated C,
zeolites, mol. sieves, inorg. odor-absorbing agents, or inorg.
bactericides and having particle diam. 0.01-200 µm and heat treating
the fabrics above the softening temp. of A fibers. The nonwovens are
useful for odor-absorbing sheets, filters for bacteria removal,
surgical gowns, and health-care products (no data). A nonwoven
fabric comprising 50% polyethylene fibers and 50% polyester fibers
was impregnated with an aq. dispersion contg. 10% porous
hydroxyapatite (I) with av. particle diam. 3.5 µm and heat treated at
130° to give a functional nonwoven fabric with I content 22%.

IT 9002-88-4, Polyethylene

(fiber; manuf. of functional nonwoven fabrics with odor
absorption and antibacterial properties)

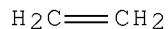
RN 9002-88-4 HCA

CN Ethene, homopolymer (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4



IT ~~1306-06-5~~, Hydroxylapatite (Ca₅(OH)(PO₄)₃)
(functional finish; manuf. of functional nonwoven fabrics with
odor absorption and antibacterial properties)

RN 1306-06-5 HCA

CN Hydroxylapatite (Ca₅(OH)(PO₄)₃) (CA INDEX NAME)

Component	Ratio	Component
		Registry Number
=====	=====	=====
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

IC ICM D06M011-71

ICS D04H001-42; D21H017-63

ICI D06M101-16

CC 40-10 (Textiles and Fibers)

Section cross-reference(s): 63

IT ~~9002-88-4~~, Polyethylene 25085-53-4, Isotactic
polypropylene

(fiber; manuf. of functional nonwoven fabrics with odor
absorption and antibacterial properties)

IT ~~1306-06-5~~, Hydroxylapatite (Ca₅(OH)(PO₄)₃) 1309-42-8,
Magnesium hydroxide (Mg(OH)₂) 13463-67-7, Titanium dioxide, uses
13767-12-9, Tetracalciumphosphate
(functional finish; manuf. of functional nonwoven fabrics with
odor absorption and antibacterial properties)

L56 ANSWER 38 OF 45 HCA COPYRIGHT 2009 ACS on STN

AN 117:214121 HCA Full-text

OREF 117:36999a,37002a

TI Oriented polyester films with good abrasion resistance for magnetic
tapes

IN Suzuki, Toshitake; Konagaya, Yuji; Matsumoto, Haruo; Kuze, Katsuro

PA Toyobo Co., Ltd., Japan; Nippon Magphane Co., Ltd.

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 04132743	A	19920507	JP 1990-253754	19900921

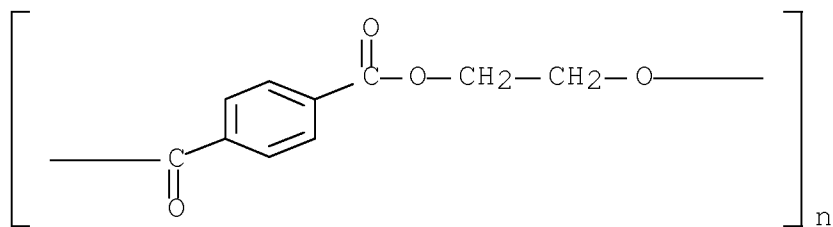
PRAI JP 1990-253754 19900921 <--

AB The title films with low friction are prepd. from mixts. of a polyester with 0.1-10% thermoplastic resin which contains inert particles added during polymn. and has a lower dynamic modulus than the polyester. Melt kneading of 97.5 parts poly(ethylene terephthalate) (dynamic modulus 3.0×10^9 N/m²) with 2.5 parts adipic acid-butanediol-ethylene glycol-terephthalic acid copolymer contg. CaCO₃ particles and having dynamic modulus 5.0×10^7 N/m², extrusion of the blend, and biaxial stretching gave a film for magnetic tape.

IT 25038-59-9, uses
 (blends contg., inert particle-filled, for magnetic tapes)

RN 25038-59-9 HCA

CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (CA INDEX NAME)



IT 1306-06-5, Hydroxyapatite
 (fillers, polyester blends contg., for magnetic tapes)

RN 1306-06-5 HCA

CN Hydroxylapatite (Ca₅(OH)(PO₄)₃) (CA INDEX NAME)

Component	Ratio	Component Registry Number
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

IC ICM C08J005-18
ICS B29C055-02
ICI B29K067-00, B29L007-00, C08L067-02
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 37
IT 25038-59-9, uses
(blends contg., inert particle-filled, for magnetic tapes)
IT 471-34-1, Calcium carbonate, uses 1306-06-5,
Hydroxyapatite 7631-86-9, Silica, uses 7727-43-7, Barium sulfate
(fillers, polyester blends contg., for magnetic tapes)

L56 ANSWER 39 OF 45 HCA COPYRIGHT 2009 ACS on STN

AN 117:113208 HCA Full-text

OREF 117:19743a,19746a

TI Transparent abrasion-resistant oriented polyester films

IN Suzuki, Toshitake; Konagaya, Juji; Matsumoto, Haruo; Kuze, Katsuro

PA Toyobo Co., Ltd., Japan; Nippon Magphane Co., Ltd.

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	
PI	JP 04122738	A	19920423	JP 1990-243006	199009 12

<--

PRAI JP 1990-243006 19900912 <--

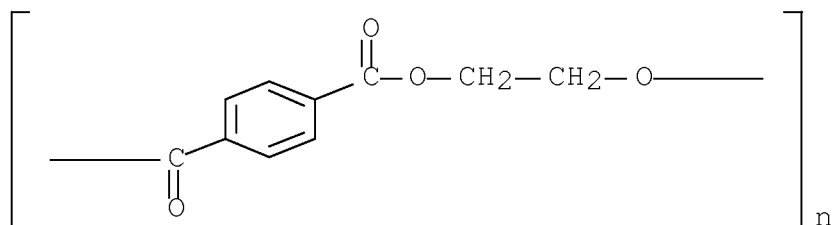
AB The title films, useful for packaging films, base films for magnetic tapes, etc., are composed of inactive particle-free polyesters and 0.1-10% (based on polyesters) thermoplastic resins prepd. by polymn. in presence of inactive particles and whose glass transition point (Tg) is lower than that of the polyester. Thus, heating terephthalic acid 48, sebacic acid 52, and ethylene glycol 47 parts in presence of Zn(OAc)₂, Sb₂O₃, and NaOAc at 240° and treating the product with 32 parts of a 30% slurry of CaCO₃ in ethylene glycol in vacuo at 285° for 3 h gave CaCO₃-contg. polyester (Tg -19°). Then, 97.5 parts ethylene glycol-terephthalic acid copolymer (Tg 74°) and 2.5 parts CaCO₃-contg. polyester were melt blended, extruded at 290°, biaxially stretched at 90°, and heat set at 220° to give a 12-μm film with haze 5.1%, void 0.15%, and broken void d. 0.0 /mm².

IT 25038-59-9P, Ethylene glycol-terephthalic acid copolymer, preparation
(prepn. of, blends with inert particle-contg.)

thermoplastic resins, for transparent abrasion-resistant oriented films)

RN 25038-59-9 HCA

CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (CA INDEX NAME)



IT 1306-06-5, Hydroxylapatite

(thermoplastic resins contg., polyester blends, for transparent abrasion-resistant oriented films)

RN 1306-06-5 HCA

CN Hydroxylapatite (Ca5(OH)(PO4)3) (CA INDEX NAME)

Component	Ratio	Component
		Registry Number
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

IC ICM C08J005-18

ICS B29C055-12

ICI B29K067-00, B29L007-00, C08L067-00

CC 38-3 (Plastics Fabrication and Uses)

ST polyester film transparent abrasion resistance;
thermoplastic blend polyester film transparent; calcium carbonate filler polyester film; oriented film polyester

IT Abrasion-resistant materials

Transparent materials

(polyester-thermoplastic resin blend films contg. inert fillers as)

IT Plastics, film

(polyester-thermoplastic resin blends, oriented, transparent, with good abrasion resistance)

IT Polyesters, uses

(thermoplastic resin blends, oriented films, transparent, with good abrasion resistance)

IT Packaging materials
(films, oriented, polyester-~~thermoplastic~~ resin blends,
transparent, with good abrasion resistance)

IT Recording apparatus
(magnetic tapes, base films, polyester-~~thermoplastic~~
resin blends for)

IT 25038-59-9P, Ethylene glycol-terephthalic acid copolymer,
preparation
(prepn. of, blends with inert particle-contg.
~~thermoplastic~~ resins, for transparent abrasion-resistant
oriented films)

IT 471-34-1, Calcium carbonate, uses 1306-06-5,
Hydroxylapatite 7631-86-9, Silica, uses 7727-43-7, Barium
sulfate
(~~thermoplastic~~ resins contg., polyester blends, for
transparent abrasion-resistant oriented films)

L56 ANSWER 40 OF 45 HCA COPYRIGHT 2009 ACS on STN

AN 116:215934 HCA Full-text

OREF 116:36597a,36600a

TI Oriented polyester films for magnetic tapes

IN Suzuki, Toshitake; Nishino, Yasuhiro; Matsumoto, Haruo; Kuze,
Katsuro

PA Toyobo Co., Ltd., Japan; Nippon Magphane Co., Ltd.

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	

PI	JP 03247631	A	19911105	JP 1990-44093	199002 23

<--

PRAI JP 1990-44093 19900223 <--

AB The title films, showing good transparency and abrasion resistance
and low void formation around inert particles, contain inert
particles which are surface treated with a ~~thermoplastic~~ resin having
glass temp. (Tg) below the Tg of the polyester. An oriented PET (Tg
67°) film contg. CaCO3 particles treated with a polyester (Vylon; Tg
50°) showed haze 6.2%, void vol. 0.30%, and fracture void 0.2/mm2,
vs. 13.2, 1.35, and 1.2, resp., with untreated CaCO3.

IT 1306-06-5, Hydroxyapatite
(filler, polyester film contg., for magnetic recording tape)

RN 1306-06-5 HCA

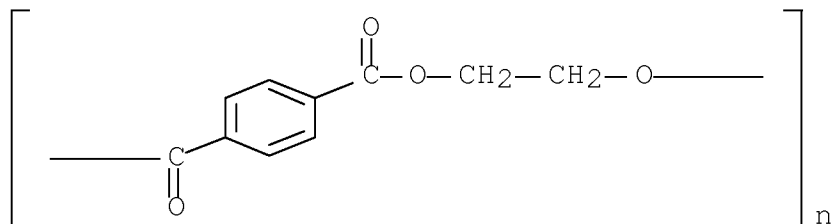
CN Hydroxylapatite (Ca₅(OH)(PO₄)₃) (CA INDEX NAME)

Component	Ratio	Component Registry Number
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

IT 25038-59-9, PET polymer, uses
(film, contg. polymer-treated fillers, for magnetic recording
tape)

RN 25038-59-9 HCA

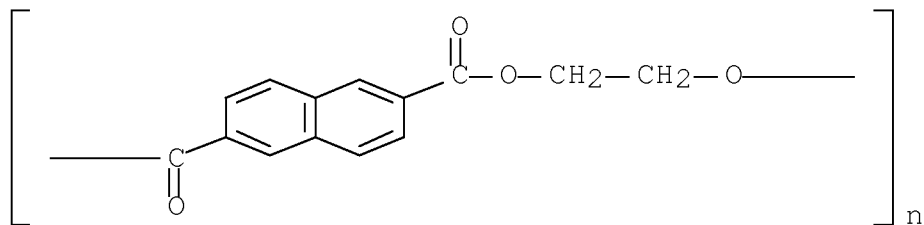
CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (CA INDEX
NAME)



IT 24968-11-4
(film, filler-contg., for magnetic recording tape)

RN 24968-11-4 HCA

CN Poly(oxy-1,2-ethanediylloxycarbonyl-2,6-naphthalenediylcarbonyl) (CA
INDEX NAME)



IC ICM C08J005-18

ICS C08K009-04; C08L067-02

ICA B29C055-02

ICI B29K067-00, B29L007-00, C08L067-02

CC 38-3 (Plastics Fabrication and Uses)
 IT 471-34-1, Calcium carbonate, uses ~~1306-06-5~~,
 Hydroxyapatite 7727-43-7, Barium sulfate
 (filler, polyester film contg., for magnetic recording tape)
 IT ~~25038-59-9~~, PET polymer, uses
 (film, contg. polymer-treated fillers, for magnetic recording
 tape)
 IT ~~24968-11-4~~ 25230-87-9, Ethylene
 glycol-2,6-naphthalenedicarboxylic acid copolymer
 (film, filler-contg., for magnetic recording tape)

L56 ANSWER 41 OF 45 HCA COPYRIGHT 2009 ACS on STN

AN 116:46359 HCA Full-text

OREF 116:7893a,7896a

TI Manufacture of artificial bone with synthetic fibers, polymers, and
 hydroxylapatite

IN Hino, Kenichi; Okami, Katsutoshi

PA Kuraray Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	
PI	JP 03182244	A	19910808	JP 1989-319641	198912 08

<--

JP 2989624 B2 19991213
 PRAI JP 1989-319641 19891208 <--

AB Fibrous strands are impregnated with a **thermoplastic** resin or other
 resins that may be hardened for the manuf. of artificial bone. An
 artificial bone comprises the fibrous materials, a polymerizable
 monomer, and a calcium phosphate ceramic. A polymerizable resin
 compn. was prepd. which consisted of (1) hydroxylapatite powder (0.1-
 500 μ m in diam)., (2) polyarylate fibers (Vectran) impregnated with
 Me methacrylate polymer and (3) a soln. contg. bisphenol A polyethoxy
 dimethacrylate 40, 2,2-bis[p-(γ -methacryloxy- β -
 hydroxypropoxy)phenyl]propane 30, triethylene glycol dimethacrylate
 30, camphorquinone 1, p-N,N-dimethylaminobenzoic acid Et ester 1, and
 di-tert-butylhydroxytoluene 0.05 part by wt. This compn. was placed
 in a mold, polymd. under a visible light irradiation for 1 min to give a
 bone substitute.

IT ~~1306-06-5~~, Hydroxylapatite
 (artificial bone manuf. with polymeric fibers and)

RN 1306-06-5 HCA
CN Hydroxylapatite (Ca5(OH)(PO4)3) (CA INDEX NAME)

Component	Ratio	Component Registry Number
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

IT 9011-14-7, Methyl methacrylate polymer
(polyester fiber impregnated with, in prepn. of artificial bone)

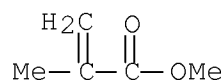
RN 9011-14-7 HCA

CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (CA INDEX NAME)

CM 1

CRN 80-62-6

CMF C5 H8 O2



IC ICM A61F002-28

ICS A61L027-00

CC 63-7 (Pharmaceuticals)

IT 1306-06-5, Hydroxylapatite 14808-60-7, Quartz, biological studies

(artificial bone manuf. with polymeric fibers and)

IT 9011-14-7, Methyl methacrylate polymer

(polyester fiber impregnated with, in prepn. of artificial bone)

L56 ANSWER 42 OF 45 HCA COPYRIGHT 2009 ACS on STN

AN 100:104493 HCA Full-text

OREF 100:15901a,15904a

TI Reinforcing thermoplastic resins

PA Agency of Industrial Sciences and Technology, Japan; Mitsubishi Mining and Cement Co., Ltd.

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

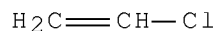
	PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
PI	JP 58154740	A	19830914	JP 1982-32852	198203 01

<--

JP 58055179 B 19831208
PRAI JP 1982-32852 19820301 <--
AB **Thermoplastic** resins reinforced with 5-300 phr columnar or needlelike
 cryst., synthetic ellestadite (I) [12415-31-5] filler have good
 dynamic and thermal properties. Thus, 100 parts PVC (103 EP) [9002-
 86-2] was blended with synthetic I 25-100, stabilizer 3-4, and
 lubricant 1.5-2 parts to give reinforced PVC.
IT 9002-86-2 9003-07-0
 (fillers for, synthetic ellestadite as)
RN 9002-86-2 HCA
CN Ethene, chloro-, homopolymer (CA INDEX NAME)

CM 1

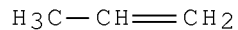
CRN 75-01-4
CMF C2 H3 Cl



RN 9003-07-0 HCA
CN 1-Propene, homopolymer (CA INDEX NAME)

CM 1

CRN 115-07-1
CMF C3 H6



IT 12415-31-5
 (synthetic, fillers, for PVC and polypropylene)
RN 12415-31-5 HCA
CN Ellestadite (Ca5[Cl0-1F0-1(OH)0-1]([SiO4]0.5(SO4)0.5]0.5-1(PO4)0-

0.5)3) (CA INDEX NAME)

Component	Ratio	Component Registry Number
Cl	0 - 1	22537-15-1
O4Si	0.75 - 1.5	17181-37-2
O4S	0.75 - 1.5	14808-79-8
F	0 - 1	14762-94-8
HO	0 - 1	14280-30-9
O4P	0 - 1.5	14265-44-2
Ca	5	7440-70-2

IC C08K007-00
CC 37-6 (Plastics Manufacture and Processing)
IT ~~9002-86-2~~ ~~9003-07-0~~
(fillers for, synthetic ellestadite as)
IT ~~12415-31-5~~
(synthetic, fillers, for PVC and polypropylene)

L56 ANSWER 43 OF 45 HCA COPYRIGHT 2009 ACS on STN

AN 99:106317 HCA Full-text

OREF 99:16375a,16378a

TI **Thermoplastic** molding composition

IN Breitenfellner, Franz; Kainmueller, Thomas

PA Ciba-Geigy A.-G. , Switz.

SO Eur. Pat. Appl., 19 pp.

CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
PI EP 78238	A1	19830504	EP 1982-810436	198210 22
			<--	
EP 78238	B1	19870812		
R: CH, DE, FR, GB, IT, LI, NL				
US 4456723	A	19840626	US 1982-435831	198210 21
			<--	
CA 1200945	A1	19860218	CA 1982-414206	198210 26

BR 8206289 A 19830920 BR 1982-6289

198210
27

JP 58083051 A 19830518 JP 1982-189976

198210
28

JP 05025902 B 19930414
PRAI CH 1981-6879 A 19811028 <--

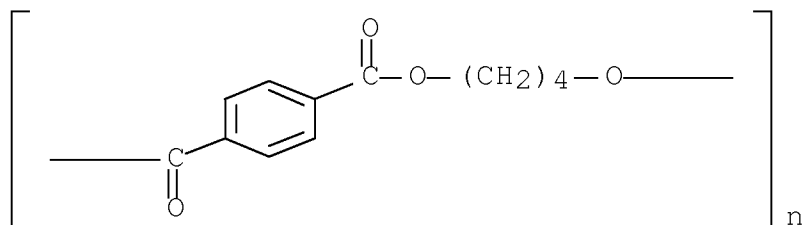
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB A Ca phosphate such as hydroxylapatite (I) is added to a
 thermoplastic such as poly(butylene terephthalate) (II) [24968-12-
 5] to improve the tracking current resistance during moldings of the
 thermoplastic and to inhibit corrosion when the **thermoplastics** are
 fire-resistant compns. contg. Br compds. and Sb2O3 and are in contact
 with metal surfaces. Thus, a mixt. of 90% II and 10% I (particle
 size 3 μ) gave moldings with tracking current resistance >600 V.

IT 24968-12-5 25038-59-9, uses and miscellaneous
 (calcium phosphate-filled, with improved tracking current
 resistance)

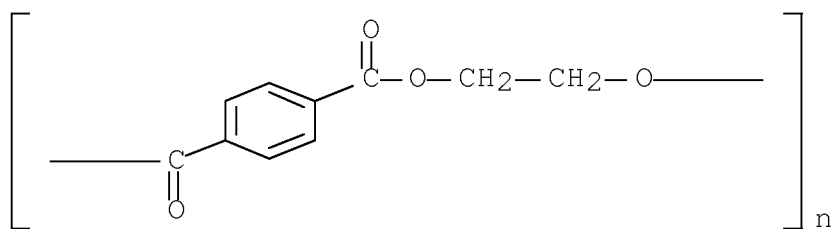
RN 24968-12-5 HCA

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (CA INDEX
 NAME)



RN 25038-59-9 HCA

CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (CA INDEX
 NAME)



IT 1306-06-5
(fillers, polyesters contg., for improved tracking current resistance and low corrosion)

RN 1306-06-5 HCA

CN Hydroxylapatite (Ca₅(OH)(PO₄)₃) (CA INDEX NAME)

Component	Ratio	Component
		Registry Number
HO	1	14280-30-9
O4P	3	14265-44-2
Ca	5	7440-70-2

IC C08K003-32; C08L067-02; H01B003-42

CC 37-6 (Plastics Manufacture and Processing)

IT ~~24968-12-5~~ ~~25038-59-9~~, uses and miscellaneous
26062-94-2 62318-41-6

(calcium phosphate-filled, with improved tracking current resistance)

IT 1306-06-5 7757-93-9 7758-87-4
(fillers, polyesters contg., for improved tracking current resistance and low corrosion)

OSC.G 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (9 CITINGS)

L56 ANSWER 44 OF 45 HCA COPYRIGHT 2009 ACS on STN

AN 87:24259 HCA Full-text

OREF 87:3859a,3862a

TI Cellular foams containing polyesters

IN Kurisu, Shizuka; Hirabayashi, Yasuji; Kawase, Shoji

PA Teijin, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO. ----- -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
PI	JP 52043871	A	19770406	JP 1975-119695	197510 06

<--

PRAI JP 1975-119695 A 19751006 <--

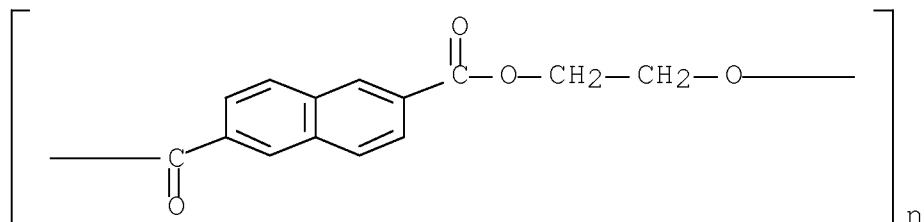
AB Foams with improved expansion ratio were prepd. by extruding compns. contg. a ~~thermoplastic~~ polyester, bisphenol A-phosgene copolymer (I) [25971-63-5], and a Na, Li, Ca, Zn, Mn, Fe, Co, Cr, Al, Bi, or K salt of carbonic acid, acetic acid, phosphoric acid, nitric acid, heteropolyacid, or homopolyacid blowing agent at 250-350°. Thus, a blend contg. poly(ethylene terephthalate) [25038-59-9] 100, I 4, and Li2CO3 1 part was extruded at 270° to give a foam with apparent sp. gr. 0.5, compared with 1.4 for a foam obtained from a similar compn. contg. NaCl instead of Li2CO3.

IT 24968-11-4

(blowing agent for, calcium acetate as)

RN 24968-11-4 HCA

CN Poly(oxy-1,2-ethanediylloxycarbonyl-2,6-naphthalenediylcarbonyl) (CA INDEX NAME)

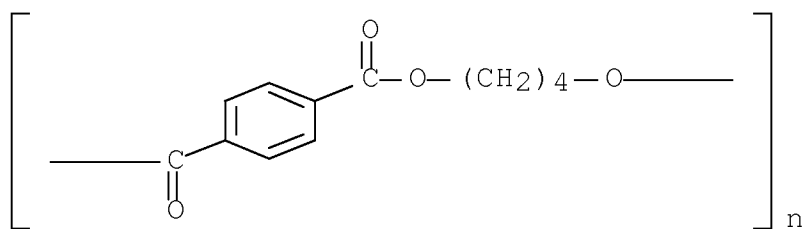


IT 24968-12-5

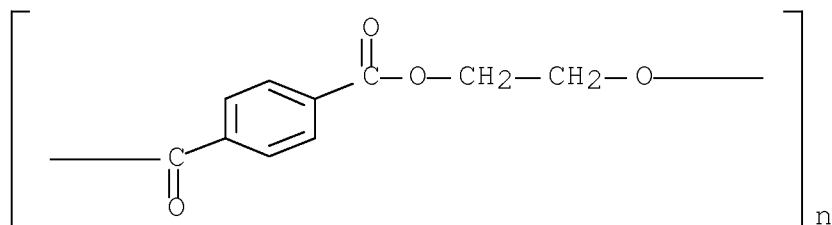
(blowing agent for, dipotassium hydrogen phosphate or sodium phosphoromolydate as)

RN 24968-12-5 HCA

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (CA INDEX NAME)



IT ~~25038-59-9~~, uses and miscellaneous
 (blowing agent for, metal salts as)
 RN 25038-59-9 HCA
 CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (CA INDEX NAME)



IT ~~59088-14-1~~
 (blowing agents, for poly(butylene terephthalate))
 RN 59088-14-1 HCA
 CN Molybdenum sodium hydroxide oxide phosphate (CA INDEX NAME)

Component	Ratio	Component Registry Number
=====	=====	=====
O	x	17778-80-2
HO	x	14280-30-9
O4P	x	14265-44-2
Na	x	7440-23-5
Mo	x	7439-98-7

IC C08J009-08
 CC 36-6 (Plastics Manufacture and Processing)
 IT ~~24968-11-4~~ 25230-87-9
 (blowing agent for, calcium acetate as)
 IT ~~24968-12-5~~ 26062-94-2
 (blowing agent for, dipotassium hydrogen phosphate or sodium

phosphoromolybdate as)
 IT 25038-59-9, uses and miscellaneous
 (blowing agent for, metal salts as)
 IT 59088-14-1
 (blowing agents, for poly(butylene terephthalate))

L56 ANSWER 45 OF 45 HCA COPYRIGHT 2009 ACS on STN
 AN 86:156670 HCA Full-text
 OREF 86:24615a,24618a
 TI Thermoplastic resin beads
 IN Weil, Richard C.
 PA United States Steel Corp., USA
 SO U.S., 8 pp.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	
PI	US 4013550	A	19770322	US 1975-598088	19750722

<--

PRAI US 1975-598088 19750722 <--
 ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
 AB Polystyrene (I) [9003-53-6] beads having uniform particle size were obtained by coating the particles with an inorg. phosphate or carbonate salt to avoid agglomeration of the fines due to static charge buildup and classifying by successive screening to obtain the desired fractions. Thus, mixing I beads with 2000 ppm hydroxylapatite [55575-17-2] allowed sepn. to 98-100% 40+ mesh particle size even at relatively high screening rates, e.g. 276 lb/h-ft².

IT 55575-17-2
 (classification with, of polystyrene beads, for uniform particle size)
 RN 55575-17-2 HCA
 CN Hydroxylapatite, fluorian (Ca₅[(OH)0.5-0.9F0.1-0.5](PO₄)₃) (CA INDEX NAME)

Component	Ratio	Component
		Registry Number
F	0.1 - 0.5	14762-94-8
HO	0.5 - 0.9	14280-30-9
O4P	3	14265-44-2

Ca | 5 | 7440-70-2

IT 9003-53-6
(control of particle size of, by classification with inorg.
phosphates or carbonates)

RN 9003-53-6 HCA

CN Benzene, ethenyl-, homopolymer (CA INDEX NAME)

CM 1

CRN 100-42-5

CMF C8 H8

$\text{H}_2\text{C}=\text{CH}-\text{Ph}$

IC B03B001-04

INCL 209009000

CC 37-2 (Plastics Fabrication and Uses)

IT 546-93-0 ~~55575-17-2~~

(classification with, of polystyrene beads, for uniform particle
size)

IT 9003-53-6

(control of particle size of, by classification with inorg.
phosphates or carbonates)